NORTHERN LIBRARIES COLLOQUY

PROCEEDINGS
of the
TENTH NORTHERN LIBRARIES COLLOQUY
held at
Memorial University of Newfoundland
St. John's, Newfoundland
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Edited by
Judith A. Whittick
and
Barbara D. Rodden

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The Centre for Cold Ocean Resources Engineering (C-CORE) was established at Memorial University of Newfoundland in St. John's in 1975. Its initial funding was provided by the Devonian Group of Charitable Foundations of Calgary. Ongoing funding now comes from government and industry.

The Centre's mandate is to undertake research that will assist the safe and order development of Canada's resources in cold and ice frequented oceans.

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Tenth Northern Libraries Colloquy

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Delegates at the Tenth Northern Libraries Colloquy (Photo Bill White, MUN)

ACKNOWLEDGEMENTS

The organization of the 10th Northern Libraries Colloquy was the cooperative of the effort of many dedicated people. As one of the principal organizers and an editor of these proceedings, I would like to thank everyone for their cooperation and assistance.

In particular, I would like to express gratitude to my colleagues, Anne Hart and Charles Cameron for their assistance in planning the technical and social programs. I would also like to thank the University Library and its staff for their support throughout the Colloquy. The financial support of the Newfoundland Library Association was gratefully received.

I can't begin to express how much I appreciated the hard work of Barbara Rodden, Mary Booton and Jo-Anne Barnes who did such a marvellous job in ensuring everything ran smoothly.

Judith Whittick

PREFACE

The Northern Libraries Colloquy was first held in 1971 at the Boreal Institute for Northern Studies with the assistance of the Arctic Institute of North America (Montreal) and the Government of the Yukon.

At the first meeting, the principal objective of the Colloquy was stated to be "exchange of information and ideas, and exploration of ways of communication among centres with northern interests and among their users". To quote Martha Andrews[1] - "The actualization of this cooperation in the form of an **international polar bibliography** may eventually be achieved through a process of networking, which has already occurred at a regional level; for the present an **international polar bibliography** exists as many concrete parts joined together through an **invisible college** of communication among members of the Northern Libraries Colloquy.

The international group has met on ten occasions with meetings held in North America, Europe and Scandinavia. Appendix V contains a list of previous Colloquies and the host organizations. Contact should be made with each group to ascertain the availability of colloquy proceedings.

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[1] Andrews, Martha. Review of the 7th and 8th Northern Libraries Colloquies. Arctic and Alpine Research, V.16(2) 270-271 (1984).

The Technical Program of the 10th Northern Libraries Colloquy was planned with the assistance of Anne Hart, Memorial University Library and Charles Cameron, Newfoundland Public Library Services. Presentations on Day One gave an overview of the resources and collections in Newfoundland and Labrador. On Day Two, the session concentrated on technical issues in establishing and maintaining northern collections. Both technical and poster sessions had a heavy emphasis on the use of computer technology in libraries or information centres. Archival materials and their organization was the topic on Day Three. The first session on Day Four, 'Northern Collections - Can They Survive in these Economic Times?' looked at some of the economic and other problems facing library collections at northern institutes and at the different methods for solution of these problems. 'An International Polar Information Network: is it possible?' was the final topic to be addressed by the delegates at the Colloquy. An excellent, well-researched paper was presented by Martha Andrews which reviewed the achievements towards the existence of a common polar bibliographic database. The Colloquy discussed issues on information networks culminating in an agreement to make COM fiche indexes for northern collections readily accessible to others.

To ensure publication of the proceedings as soon after the Colloquy as possible, those making technical presentations were asked to submit a camera ready copy of their paper. This accounts for the different formats and styles in papers of the proceedings. Invited speakers on Day One and those giving Poster Sessions were not asked to prepare a printed papers.

The next Colloquy will be held in Sweden in 1986 hosted by the Technical University Library, at the University of Lulea. Ann-Christine Haupt is responsible for organization of the 11th Colloquy. More information on the Colloquy can be obtained by writing to:

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  Cultural Affairs and Historic Resources
  Department of Culture, Recreation and Youth

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Memorial University Folklore and Language Activities

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KEYNOTE ADDRESS

Overview of Newfoundland and Labrador Collections and Resources

OVERVIEW OF NEWFOUNDLAND AND LABRADOR COLLECTIONS AND RESOURCES

WILLIAM FROST
ASSISTANT DEPUTY MINISTER
CULTURAL AFFAIRS AND HISTORIC RESOURCES
NEWFOUNDLAND DEPARTMENT OF CULTURE, RECREATION AND YOUTH

I am pleased to be present today to give the keynote address at the opening of the 10th Northern Libraries Colloquy, the first to be held in Newfoundland and Labrador.

We are always very encouraged when groups interested in the development of northern data resources meet in our province. It is particularly so when it is a group such as yours which provides vital support for researchers engaged in studying northern culture.

At this time, perhaps, I should note that you are meeting in a province with two principal parts, mainly, the island of Newfoundland and mainland Labrador. I mention this because there is some confusion about what we say when we call our province "Newfoundland". This is the result of long habit by the people living on the insular Newfoundland but should not be assumed to mean that Labrador is not equally part of our province. Indeed our provincial administration is referred to as the Government of Newfoundland and Labrador, therefore, when we use the term "Province of Newfoundland", we mean by that Newfoundland and

Labrador, the whole province and not just the island of Newfoundland.

The provincial Department of Culture, Recreation and Youth includes a number of smaller divisions (with capital D.). They include Cultural Affairs, Wildlife, Parks, Community Recreation, Sport and Fitness, Youth Services and finally the Historic Resources Division, which is responsible for a variety of functions dealing with the province's history. They include administration of the archives, provincial museums, historic sites, and control over archaeology in the province. Archives, being closely related to the interests of this conference, will be dealt with in more detail in the second part of this paper, but a brief overview of the other concerns of the division and their impact on the development of the province's history, are perhaps in order at this point.

Historic sites such as Commissariat House in St. John's and the Heart's Content Cable Station are period pieces showing one particular aspect of the 400-year-old historic period here. Four provincial museums are maintained; at Grand Bank on the south coast, at Grand Falls in central Newfoundland, and the two St. John's museums, a waterfront maritime and military history facility at the historic Murray Premises (which has yet to be completed) and the main museum on Duckworth Street, with exhibits on the prehistoric as well as historic periods.

A small historic resources division staff oversees all of the above as well as the provincial archives. Assistance is also offered to community museums in the form of grants and professional advice from the provincial museum's curators, designers and conservator.

Archaeology also falls under the Historic Resources Division mandate, and the division operates a permit system for researchers which ensures that all materials recovered are returned to the province. A small grants program is administered to assist archaeology researchers with fieldwork, and the division publishes an annual report containing their preliminary findings. Additionally, under the environmental assessment process, the division maintains a concern for possible damage to historic or archaeological sites.

The archaeological resources of this province are, by any standards, outstanding. From the arctic reaches of northern Labrador to the often fogbound coast of Newfoundland, people were here millenia before us. The earliest archaic Indians left us their story in their often well-preserved burials and settlements which date back to well over 8000 years ago. They were followed by Eskimos of the Dorset culture, and the later Indians and Inuit known to us historically. Around 1000 AD the province received its first Viking visitors at L'Anse-aux-Meadows on the northern tip of the island. The small Norse settlement there has now become a UNESCO World Heritage Site. Another possible candidate for this distinction is the combined land and underwater site at Red Bay in southern Labrador, where Basque whalers arrived each summer throughout the 16th century to practise their perilous livelihood. With the Basques following on the heels of Columbus and the Norse preceding him, it can be argued that our province can claim to be the birthplace of western civilization in North America.

This wealth of archaeological and historic data is now undergoing that miracle of late 20th century ingenuity, computerization. The National Museums of Canada and its associate museums are placing all their records on file in the new P.A.R.I.S. (Pictorial, Artifact, Information, Retrieval System) computer. This mammoth file will, at some future date, allow any user in this country to list information about any artifact in any collection of participating museums. In-house advantages include management of data on the history and attributes of an item, its conservation and its storage location. Inter-museum usage is anticipated principally for the purposes of initial research for exhibits, catalogues and scholarly work. Subject areas presently in the P.A.R.I.S. system's Newfoundland and Labrador data base include history, ethnology, archaeology and natural science. Archaeology has two separate bases, one for sites and one for specimens.

The management of these millions of bits of data is a serious business, but one has to have tongue in cheek occasionally, as one imagines a 16th century whaler's surprise and perhaps amusement if he'd been able to foresee the dilemma of which data base his bones ought to occupy: archaeology specs, history specs or natural history specs: one tends to favour reburial.

This brief overview of the province's heritage resources will be expanded upon in the session to follow. Returning to the main theme of this conference, I would like to address a few of my concerns and those of my department in regard to the "new" science of library data management.

I understand that your various fields of information collection are directed towards assembling an information data base with particular relevance to the sound management of northern resources and the preservation of the culture, lifestyle and environment of our native people. Although, no doubt, the term "Northern Library" may be assigned to all Newfoundland materials, the emphasis you place on the importance of studies assisting native people means that the bulk of northern library collections in this province would relate to Labrador resources with some direction to the native people of the island of Newfoundland. However, I do not think that this information gathering and retrieval should be directed only at native groups, because a great part of all the population of our province is still living in relatively small communities which are isolated from the most sophisticated forms of information about their own area or province. The projects you will be mentioning in your technical sessions could be useful for putting data base retrieval into our community libraries throughout both parts of the province. The technical problems of information services you will be discussing, and equally the financial problems of making the appropriate services available in community libraries, is a tremendous challenge to this province for the next decade. It hardly needs saying that it has been the policy of our provincial government to support the establishment of these kinds of services as soon as it is feasible. It is in this light that one speaks of the development of information services directed to northern resources in this province.

Because of this increased awareness of the importance of research to aid native peoples' defence of their lifestyle, there is increased emphasis on the need for institutional collections to support the work of researchers in northern studies. It is absolutely essential that there be a continuing growth in the size and sophistication of these collections.

Now if it is accepted that there should be institutional support for native studies, there will be need for a number of types of institutions to support these studies.

In some cases this support will come in the form of the specialized collections attached to a research institute specializing in northern studies. The institute will have material related to or collected by the institute in the course of its specialized activities.

Equally, there will be the global institution which will have a mandate for collection within the province, and as a consequence of its responsibility, this institution will collect materials relating to northern studies incidentally with their general mandate, in addition to collecting specifically in the area of northern materials. However, whatever the means by which materials come into the collections of such an institution, it is necessary for the institution to see that the materials are organized in a fashion which will make them available to researchers. This will require some collections to move beyond the inventory method of organizing records (especially for archival records) which allows access to the various collections by originating organization. However, many researchers in northern studies will really want the records, or more specifically the information contained in the records, in a more readily available form than the inventory. This will confront the institution with the need for thematic guides. Researchers want to know what subjects, themes, etc. are available in the different collections and an efficient way to retrieve this information is by means of thematic guides which cut across collections and media.

One of the challenges to institutions in this province is whether this type of information retrieval system can be created for the use of researchers. Such a development will not come easily, because the creation of a properly thought-out thematic finding aid system will require an immense amount of staff time to produce. This is the sticking point, at present this staff time does not seem to be visible, i.e. most institutional staffs are stretched to the maximum just coping with everyday operations of our institutions and producing the traditional finding systems, inventories, card catalogues, etc. for the media under our care. Surely it is one of the worries for institutions today that while an increasingly sophisticated researcher clientele requires more intensive finding systems, the human resources to supply this sort of system is plainly beyond the present capacity of many institutions in the information field. In fact, finding the necessary resources to produce these thematic guides will require all the energies of the relevant institutions in the future. This responsibility will fall particularly upon archival collections which are usually much less intensively organized than secondary source collections such as books. Also it is in archival collections that researchers into northern studies will find the kinds of information they are seeking. Unfortunately, archives have never been staffed for this purpose, which traditional archival clientele has been experienced enough to understand.

It is important also, where northern materials are being acquired and organized, that adequate provision be made for preservation of the different media in the collection. Very often the last thing that is considered is how the material is to be sorted, and what repairs or conservation services are necessary to protect the materials. This is particularly true in a small specialized collection which may have relatively small quantities of a wide range of materials. In this situation, it is highly unlikely that sufficient funds will be available to permit even minimal care of the collection. Every institution or other agency must provide for the care and conservation of the collections they acquire. They cannot reasonably expect that after their collections have deteriorated, to pass them over to the institutions with conservation facilities to get the damage repaired. The need for conservations of all collections of all kinds is so great, and all conservation staff and facilities are so overburdened with work, that every institution must take responsibility for its own materials, to the best of its ability.

Indeed, staff traditionally trained in library skills may find conservation an unexpected cost in the operation of multimedia collections but it is a cost that must be part of the basic planning at the creation of such a facility.

Equally important is the aspect of acquisition. There is need for a more rational approach to the situation. It is very undesirable that specialized collections be newly created to cause a competitive atmosphere for collecting northern materials. It makes very little sense to have a situation where a number of collections are serving the purpose of northern or any other studies in this area, and yet, are competing for the same materials.

The problem of competition is not a new one, but there are other problems, namely, the question of whether or not the original records of whatever media should be the object of the institution's activities. Should research institutions be aiming only at the collection of original records illustrating northern resources? Should the records be centralized in one location far from the place of origin? Is this decision based on the need to preserve and organize these records in a properly equipped centralized institution? These are the kinds of questions which will need to be addressed by this conference. They should help participants arrive at suggested solutions to problems which they can take home to their institutions.

However, there is room for optimism, for there has been remarkable progress in recent years in the development of the institutions which are the basis for information for northern research.

Beyond the possibility of more sophisticated finding systems, is the image of the microcomputer, as a means of making tools such as thematic guides instantly available. There is particular promise for the use of microcomputers to reserchers in northern studies, now that the hardware element is becoming both more sophisticated and less expensive every year. A viable network of microcomputers could be an excellent tool for use by researchers using the records in the various repositories in this area. As we have seen, to put such a system into operation would require an immense amount of preliminary work on collections to make them ready for use in microcomputer systems.

Quite obviously, one can see from looking at your program that this subject of microcomputers and data base management will be examined in very considerable depth in a number of your sessions in the forthcoming days. However, as a lay person, two points seem of significance: namely, the actual creation of the data base and the possibility of networking.

In relation to the question of data base, I would like to note that if one assumes one has reached the stage that all the preliminary work has been done to prepare the collections, then the next question would be the adoption of a ready made data base program that is commercially available or, the writing of a new program. One assumes that in most cases the former is more acceptable and economical than the latter. No doubt a great many of the problems in these steps and the inputting of the data will be recounted at tomorrow's session.

At this time, it is perhaps not irrelevant to ask the question, at what stage of an institution's development does the use of microcomputer-driven data bases become viable? Is the determining factor in this process when access to the data base is to be shared by a network of microcomputers in different institutions? How large does an institutional collection have to be before data base management becomes an efficient means of access? Are microcomputer systems useful in a small institution? These are some questions which you will want to be discussing at this colloquy. I think that these are the sorts of questions that should be asked before any decision is made about taking the step into computerization. Perhaps a further question would be, should data base management be in addition to traditional finding systems or should it replace these systems?

Now with regard to networking, this would obviously be exceedingly useful in this province as similar projects in other fields have shown. Since the main repositories of northern materials are almost all in the St. John's area, a microcomputer network would be an excellent means of making information about the resources of the St. John's institutions instantly available throughout Newfoundland and Labrador.

Of course, one further question should be raised, and that is, does the microcomputer data base system aim at the supplying of information about finding aids, i.e. is the data base the finding aid system, or does the data base aim at providing the actual information as contained in the collections, in other words, is the information in records to be entered into the data base? Are the original records to become redundant? The answers to those questions will no doubt depend on the individual institution's need and financial resources. It would seem that, for the traditional collections, perhaps the finding aid systems should go to microcomputers first, since that should be the least expensive stage of development. It could be used as a trial of the system, and if all fails, it still can be used as an in-house finding system. In this situation, new technology should be put to good use, not just any use.

As one can see, these developments already mentioned would create a most serviceable system for improving access to information held in conventional formats (records, books, audio-visual material, etc.). The suggestions I have made and the points raised are done to ask questions which should be of interest to your conference as it examines the shape which information systems in research fields are taking, and will be taking, in the future. For while this conference is about northern studies, it could be about any field of information retrieval since the same problems and possibilities apply.

TECHNICAL SESSION I

Newfoundland and Labrador Collections

THE CENTRE FOR NEWFOUNDLAND STUDIES

A paper presented by Anne Hart to the Tenth
Northern Libraries Colloquy, St. John's,
Newfoundland, August 13, 1984.

In common with a number of my colleagues at this conference, I am a Librarian concerned with the collection of materials and the provision of information services in a special collection - in this case a collection devoted entirely to the province of Newfoundland and Labrador. In the Centre for Newfoundland Studies in the Queen Elizabeth II Library of Memorial University we have as our mandate the acquisition of all current and out of print works and publications on Newfoundland and Labrador and all works written by, or about, Newfoundlanders and Labradorians. We do not discriminate - we pounce as eagerly on an underground collection of Newfie Jokes as we do upon a fine scholarly paper or the latest coffee table book. A constantly nagging fear of ours is that somehow, somewhere, something has been published about Newfoundland and Labrador which will go out of print before we can acquire it.

The Centre for Newfoundland Studies began as a separate entity within Memorial University Library in 1965 at a time when great interest and activity in Newfoundland and Labrador studies and culture was getting underway both at the University and in the community. Two recently acquired large private libraries of Newfoundland material, together with Newfoundland books from the main stacks, were brought together in one separate collection and named The Centre for Newfoundland Studies. Its first Librarian was Agnes O'Dea who, for a number of years prior to this, had been compiling on cards a bibliography of Newfoundland. Using this as a base, she then began to fill out the collection retrospectively by purchases, photocopying, microfilming, digging, sleuthing, and further gifts. (I should add that Agnes O'Dea's tenacious compilation of her comprehensive Bibliography of Newfoundland has continued to this day and that this work will be published in two volumes within the next year or so by the University of Toronto Press).

In existence now for almost 20 years, the Centre has grown into a combined research/rare book/archival collection of some 42,000 volumes and 300 linear meters of archival material cared for by a staff of sixteen.

Who uses our collection? Primarily the many students of the many courses offered by Memorial University in Newfoundland studies - history, geology, geography, linguistics, folklore, political science and so on. The collection is also heavily used by graduate students, faculty members, visiting scholars, correspondents from elsewhere, local historians, government researchers, and the general public of all ages.

Behind the scenes our current projects include work on the bibliography of monographs which I have mentioned, the compilation of a second extensive bibliography, the Newfoundland Periodical Article Bibliography, the indexing of the Newfoundland Quarterly commencing at 1901, the indexing of the MUN Gazette commencing at 1968, several conservation projects and, since 1980, our archives section which continues to grow rapidly in use and size. The archives - for which we have produced the first edition of a Guide - includes literary papers of Newfoundland authors, a theatre/performing arts archive in collaboration with the Memorial University Folklore Archives, a number of collections of political papers, a number of collections of mercantile records, collections of personal papers including MUN faculty, and a collection of miscellaneous manuscripts.

You will shortly be hearing from Charles Cameron of the Provincial Reference and Resource Library of the Newfoundland Public Library Services. By these two collections - the University's Centre for Newfoundland Studies and the Public Library's Reference and Resource Library - researchers and students of Newfoundland subjects are, I believe, extremely well served.

NEWFOUNDLAND COLLECTION
NEWFOUNDLAND PUBLIC LIBRARY SERVICES

Mona Cram and Charles Cameron
Newfoundland Public Library Services

The Provincial Reference and Resource Library, as the name suggests, is a provincial service. Its mandate is to provide an information service, a research collection, and facilities for all residents of the province. The Library is open to the public and is the public reference library for residents of St. John's and the surrounding area. People living too far away to come in person may contact us indirectly by going through their local library, which in turn contacts the regional headquarters, from which requests are sent to us by telex. If there is no local library, residents may contact us indirectly through the regional headquarters of the area, or directly by letter or telephone. At present, the province is divided into six regions and the St. John's City Libraries.

Although prior to 1936 there were various libraries, both free and by paid membership, the present public library system dates from 1934 with the establishment of the (Newfoundland) Public Libraries Board. The Provincial Reference and Resource Library began as the Reference Department of the Gosling Memorial Library which was officially opened on January 9, 1936.

The Provincial Reference and Resource Library has two major collections. The first is a general reference collection similar to that found in any public reference library serving a similar clientele. The second collection is the Newfoundland Reference Collection, which is one of the most significant collections of Newfoundland material to be found and about which the remainder of these remarks will be made.

From the beginning the (Newfoundland) Public Libraries Board show keen interest in having a Newfoundland Collection as part of the total collection in the Public Library System. They regarded having such a collection as a means of preserving Newfoundland history and culture and when the Gosling Memorial Library was officially opened in 1936, in the building now housing the Newfoundland Museum, the nucleus of the present Newfoundland Collection was available to the public. The Governor, Sir David Murray Anderson borrowed the first book entitled "The Life of Sir Humphrey Gilbert" by W.G. Gosling, which was a volume in the then circulating part of the Newfoundland Collection.

The original book stock of the Gosling Memorial Library was made up of the Gosling Collection - a collection of 1,800 volumes owned by W.G. Gosling, a former mayor of St. John's. To this many other gifts were added, including the book collection held by the Legislative Library which had been closed by the Commission of Government on the retirement of the Librarian, Miss E. Morris in September, 1934. All the Newfoundland books in the Gosling and Legislative Library Collections were placed in the Newfoundland Collection of Gosling Memorial Library. From that time forward current and rare books and other materials have been added continually to that Collection until, at present, it consists of more than 22,000 catalogued items. In 1969 the Provincial Reference and Resouce Library including the Newfoundland Collection was moved from the Museum building to the Arts and Culture Centre, where it is still located.

The policy for inclusion into the Collection has broadened until at present we add all printed material we can locate about Newfoundland whether written by Newfoundlanders or others, all printed materials published by Newfoundlanders regardless of topic and one copy of all works published in Newfoundland regardless of author or subject. In the early years, in most cases, only one or two copies of each current title was purchased but at present we purchase five copies so that present day publications will be available not only now, but also in the future.

The Newfoundland Collection is comprised of books, pamphlets, brochures, manuscripts, government documents, photos, pictures, postcards, maps, newspapers, periodicals, scrapbooks, diaries, records, and microfilm. Many of the books in the Collection date back to the 18th and 19th centuries. The two earliest works are Sir Richard Witbourne's "Discourse and Discovery of New-found-land," published in 1622 and William Vaughan's "Golden Fleece", published in 1626. Others include Capt. George Cartwright's "Journal of Transactions and Events, during a Residence of nearly Sixteen Years on the Coast of Labrador", published in 1792, in three volumes, Reeves's "History of the Government of the Island of Newfoundland", published in 1793, Lieut. Edward Chappell's "Voyage of His Majesty's Ship Rosamond to Newfoundland and the Southern Coast of Labrador", 1818, Anspach's "History of Newfoundland," 1819, MacGregor's "British America", 1832, Wix's "Six Months of a Newfoundland Missionary's Journal", 1835 and Philip Tocque's "Wondering Thoughts or Solitary Hours", 1846, and his "Newfoundland Almanack for the year of Our Lord 1849", to mention only a few.

A number of important manuscripts are included in the Collection such as the Sweetman and Saunders Letter Book, a bound volume of hand-written business letters written at Placentia between 1788 and 1804. Newfoundland writer Harold Horwood, nationally known for his novel "Tomorrow will be Sunday" has placed three pre-publication manuscript versions of that novel in the Collection. These manuscripts show the various stages of development of the novel and it is interesting to note that his original title was "Habitation of Dragons". Other manuscripts include 18th century court records of Trepassey, Placentia, St. John's and other communities, the ledgers of local businesses including the Labour Book and Price List of Rennie's Bakery, one of the earliest bakeries in Newfoundland. Of special interest is Captian David Buchan's "Journal", this being the account of his expedition in search of the Beothucks in January 1811.

Newfoundland Government documents make up another important part of the Collection and included in this group is an almost complete set of the Journals of the House of Assembly the appendices of which contain most of the Departmental Reports of the Government during the periods of Representative and Responsible Government. The reports of the Newfoundland Geological Survey and those of the Fisheries Research Committee and Board merit special mention. Also included are British and Canadian Government documents related to Newfoundland affairs.

Another important part of the Newfoundland Reference Collection is the Newfoundland Newspaper Collection made up of approximately 2,500 bound volumes. Most of the 19th century papers were published in St. John's but there are also holdings from some of the larger outports such as Harbour Grace and Carbonear. At present we subscribe to all newspapers published in the Province. Since these papers are such a valuable source for research and since many of the older volumes were becoming quite fragile, a joint microfilming project was undertaken about 8 years ago in collaboration with Memorial University and the Provincial Archives. Filming began on those papers which had not already been done by the Canadian Library Association, or, were not being filmed by commercial companies. The majority of the older titles have now been completed.

For the past ten years, the library has been indexing the major local daily newspaper The Evening Telegram. The index is a computer generated book catalogue, produced semi-annually.

The Library also subscribes to all magazines and periodicals now being published in Newfoundland and has collected many old and rare items such as the Illustrated Tribune, Christmas Numbers, The Colonial Commerce Magazine and The Veteran.

In addition to acquiring present day maps, the Collection also contains several hundred rare maps and charts including some of those of such famous cartographers as Bellin, Bertius, Kitchen, Lane, Moll, Owen, Page, Popple and Zatta. One item of which we are particularly proud is an original copy of the North American Pilot for Newfoundland, Labrador and the Gulf and River St. Lawrence containing the map of Captian James Cook.

The increased demand for photographs prompted us, several years ago, to add photos to the Newfoundland Collection. Although this photo collection is small, it does include some very worthwhile items. Several years ago we acquired the negatives of a series of pictures taken by Rev. Edward Hunt an Anglican clergyman who was also an amateur photographer. In the early years of this century he took many photos of the settlements in his various parishes in Trinity and Conception Bays. His daughter, Mrs. Florence Murrin is also an amateur photographer and she has traced her father's steps and taken photos of the same places in the past several years. We have also acquired her photos and the two sets are excellent for comparative purposes. Another group in the photo collection was acquired from Mr. Brendon Kenny. One series in his collection show the frontages of many St. John's businesses in the early 1900's. Several from his group are on display in the library at this time if you wish to see them.

Finally, a brief mention of a group of five watercolours which were donated to us several years ago by Mrs. Millicent Penney. They were the work of Professor J.W. Nicholls who came to Newfoundland from England in the late 1800's and set up an Art school in St. John's.

If anything mentioned here is of interest to you, I hope you will have time to visit the library during your stay.

PROVINCIAL BOOKS BY MAIL

Elaine Morton

Newfoundland Public Library Services

Public library service in Newfoundland faces the obstacles of long distance and, especially in Labrador, places served only by coastal boat or air. What is now thought of as traditional methods of serving the public, centrally-located libraries or bookmobiles, are not feasible for these conditions; therefore, Newfoundland Public Library Services is developing a province-wide books by mail service to replace the bookmobile service that was phased out in 1982-83 and to extend the scope of library service in the province.

The mandate of Provincial Books by Mail is to serve those communities who are not served by a public library. This service is limited to recreational reading and popular non-fiction with an emphasis on paperback format. Over ninety percent of the collection is paperback.

The Books By Mail service was started in 1975 by Central Region Librarian Joel Levis as a pilot project within his region. The objective was to explore potentials of such a service for the province as a whole with special emphasis on the cost in comparison to that of bookmobile service. Procedures could also be ironed out while the service was offered on a relatively small scale. As the pilot project proved effective the Books By Mail service was made a separate department in 1982 and made the first expansion of its service area in September 1983 with the inclusion of Labrador and the Northern Peninsula. At present, Provincial Books By Mail sends catalogues to 12,000 households.

As with mail services in other areas, such as Maine and New Mexico, a catalogue is compiled regularly. In Newfoundland, a new catalogue is published each year. Unlike most other mail services, this catalogue is mailed to every household in specified communities. Canada Post has a special rate for such mail which is delivered to the post office in bulk bundles and boxes instead of being individually labelled and stamped. As the collection is predominantly paperback, each catalogue supercedes all other catalogues. This makes for a regular schedule of weeding. Up to the 1984 catalogue half the titles were repeated from the previous catalogue. With the 1985 edition, no titles will be repeated because of rising printing costs and because of complications engendered by the expansion of the service area. These complications include heavier demand on the books which necessitates more frequent weeding and scheduling problems from the overlapping of the currency of two catalogues.

Each Spring, approximately 1000 titles are purchased from mass-market paperback suppliers in Toronto, Ontario. I usually buy ten copies of each title. The summer is spent annotating each title and then compiling the entries for the catalogue. At the end of August, draft is sent to the publisher. The collection consists of popular recreational books with an emphasis on fiction. To date, the department's mandate does not include any non-book materials.

Because of the limited scope of the mail service, Provincial Books By Mail has always acted as a referral service. Patrons would regularly write in for information or titles not offered in the catalogue and these requests would be forwarded to the appropriate place. There were no problems with this system until the inclusion of a new region because Provincial Books By Mail and Central Region Libraries shares a building, and until 1982, shared a librarian. Complications are now surfacing; the chief one is the delays in getting the material to the patron. Over half the requests are mailed to us when books are returned. Letters travel more quickly than parcel mail so travelling time can be doubled -- especially when sent from Labrador. The telexing and mailing of the requests is also an added expense and delay. Beginning in 1985, patrons will be asked to contact their regional library office for materials not offered in the Books By Mail catalogue; addresses of the regional headquarters will be given.

Once a year, the catalogue is sent to every household in the communities we have listed as eligible. Each library region is on a staggered schedule during the year for receiving the catalogue. Thus Central Region communities receive the catalogue in January and Labrador in September. To borrow a book, a patron fills in a business reply card printed on the back cover. We need, name, address, postal code, and ask for telephone number. There is no formal registration of borrowers. The borrower fills in the catalogue numbers for the titles he requests and is asked to indicate if substitutes are unacceptable. There is a limit of six books per borrower at one time. There are no charges involved with this service. The order card is mailed to us at our expense. This order card becomes our circulation record.

When the cards are received, they are sorted into region and checked against a suspended borrower list. Each card is then assigned a transaction number which is noted on the free return label to be included with the books. The order cards are put in bundles of twenty, and mailing labels are typed. Twenty orders have been found to be the best balance between efficiency and accuracy; more orders lead to confusion and mistakes; fewer orders waste time. Once the books are picked up, the copy number for each title is noted beside the order number; the books sealed in mailing bags; and the parcels sorted into postal districts. Each afternoon the parcels are franked, ready for delivery to the post office the next morning. The order cards are then sorted for the compiling of a community profile which shows the number of books ordered and the number sent for each community. The cards are then filed in numerical order under the due date.

Overdue notices are made out once a month for orders due before the first of the preceding month. The next month the borrower is suspended if the books are not returned or the replacement cost paid. There are no fines for late books.

In 1983-84, 61,874 books were circulated from our office. This was accomplished with a permanent staff of two library clerks and a mail messenger who is shared with the Central

Region. In addition two clerks were hired part-time for peak periods. Canada Post's special library book rate keeps the cost of sending a parcel of books out to a borrower under fifty cents. The borrower returns the books free of charge using a free return label; this is covered by the outgoing postage when using library book rate.

Provincial Books By Mail is meeting the challenge of providing library service to all the smaller or isolated communities in Newfoundand at the minimum cost. The many comments we receive reveal a very deeply-felt need which is not met by any other agency, public or private. Most places in the province have no bookstores to fill this need for a varied selection of reading material. For materials we cannot supply, the borrower is referred to another source for library services -- the regional headquarters. Between the regions and the mail service, we look forward to making accessible to everyone in Newfoundland the information and reading they want and need.

TECHNICAL SESSION II

Establishment and Development of Northern Collections

COMPUTERS AND THEIR IMPACT UPON THE ELMER E. RASMUSON LIBRARY AND ITS SERVICES

by

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Since the 1960's, the University of Alaska has had a central computer network and from the early 1970's, the Elmer E. Rasmuson Library has made use of this computer network.

Programs on these main frames have been used to produce the Serials Listing for the library, which became the Alaska Union List of Serials, the Bibliography of Alaskana and other indexes covering variety of topics. Additionally, all faculty and, at some point, students, had up to 100 free hours of time on the University's mainframe computer. However, this apparent accessability and flexibility has historically been more apparent than real.

The library and its needs have traditionally been a low priority of the University of Alaska Computer Network (UACN) compared to central administrative needs and the demands of academic units. UACN, for a period of time, was shortfunded by the Alaska State Legislature which led to shortages of hardware, ports, and storage capacity. In this less than optimal atmosphere, working relations between UACN and the Rasmuson Library developed into a "Catch-22" situation. The library would be told by UACN that no programmers were available to develop programs without fees. When we were willing and able to fund software programming, UACN had no programmers available for us to fund. Programming done by staff outside UACN was not allowed to be used on the system.

Because of the situation outlined above, the Rasmuson Library began to look for various alternatives to utilizing computer resources of the University of Alaska Computing Network.

YEAR	ELMER E. RASMUSON LIBRARY	OTHER ALASKAN LIBRARIES	TOTAL HOLDINGS
1979/80	27,480	34,887	62,367
1980/81	143,008	88,360	231,368
1981/82	170,698	176,094	346,792
1982/83	196,681	369,316	565,997
1983/84	233,693	641,748	875,441

ALASKA WLN DATA BASE GROWTH IN TERMS OF HOLDINGS

TABLE 1

To meet the various computing needs of the library, we have used basically two types of computers and computing: 1) a large centralized bibliographic utility; and 2) microcomputers. Both of these alternatives have solved problems, created new ones and have caused some interesting changes in our service patterns.

In 1976, the Rasmuson Library became a member of the Washington Library Network, one of the three major bibliographic utilities in the United States. At the same time, the Alaska State Library also became a member. Initially, WLN was used solely for support of the cataloging function. The first data input into WLN was cataloging information from the "Boeing Project" which was a cooperative effort of the Rasmuson Library, the Alaska State Library and the Washington Library Network. The cataloging data input was approximately 6,000 titles from the library's Alaska book collection. This small amount of cataloging data was the basis for what came to be called the Alaska Library Network catalog which is produced on microfiche off WLN and distributed to over 300 libraries throughout Alaska. The growth of this data base was phenomenal. On June 30, 1980, the Rasmuson Library had 27,480 holdings in the WLN data base; on June 30, 1984, the library had 233,693 holdings in the data base. The same rapid growth is found for other libraries in Alaska. (See Table 1).

This growth was not without planning. At the beginning of WLN involvment, the Rasmuson Library staff decided that everything added to the collection would go into WLN and into the card catalog. We also decided to undertake a massive retrospective conversion of shelflist of older titles. The first large project of this kind was the input of all records for Alaskana (except serials and Russian language materials). That project being completed, a multi-year project of converting records from the rest of the collection was begun. This project is still in progress.

In May 1981, the library widened its involvement by implementating the acquisitions subsystem of WLN and using the system for all monographic ordering. We also started building an in-process file of all items received but not yet cataloged which is accessible on-line and through a microfiche product.

Also in 1981 we began public access to the WLN data base by putting two terminals in the reference area. These terminals are available to users with no librarian interface unless the user requests help. Directions on how to operate the terminals are given in a self-paced instruction book at the terminal tables. In 1981/82, the terminals had 28,464 inquiries; in 1982/83, 54,899 inquiries; in 1983/84, 75,003 inquiries. We now have lines waiting to use the terminals during the academic semester.

Building of the data base, not only by the Rasmuson Library, but also by other libraries in Alaska was intended, among other things, to facilitate resource sharing. Since the Rasmuson Library was the largest library in the state and had the most holdings for any one library in the ALN catalog, it was anticipated that the Rasmuson Library would bear the burden of increased interlibrary loan activity in terms of the demands placed upon its collections by users in the state. This has not proved to be the case. It is true that interlibrary loan requests to the Rasmuson Library have increased since 1973/74. (See Table 2). However, the Rasmuson Library has always done a large amount of interlibrary loan-lending. This can be explained by the obvious fact that Rasmuson is the largest library in the state. Confirmation of this can be found in a survey conducted in 1983, (West, 1984) in which it was found that the Rasmuson Library was thought of first for interlibrary loan before any other Alaska Library. This was true regardless of where the requesting library was located in the state. So perhaps the rise in number of interlibrary loan requests is not surprising.

What has risen significantly is the fill rate. In 1979/80 (the last fiscal year before the ALN microfiche catalog was distributed) the fill rate for interlibrary loan requests at the Rasmuson Library was 63%. In 1980/81, it rose to 73% and in 1981/82, it rose to 84% where it has remained. (See table 2) This would indicate that requests are more likely to come to the Rasmuson Library because the requesting library knows we have the item in hand, rather than hoping we do because we are the largest library. I suspect if a study of interlibrary loan activity for other libraries in Alaska were undertaken, a similar finding would be found.

It would seem then that one premise of building a shared data base for resource sharing, that it helps to distribute the interlibrary loan load, is accurate. However, since more citations are known to users and libraries with the distribution of the statewide microfiche catalog, number of requests received will probably rise to offset any benefit of more distributed

YEAR	REQUESTS RECEIVED	REQUESTS FILLED	UNFILLED	FILL RATE
1973/74	4,367	3,366	132	77%
1974/75	5,794	3,399	2,395	59%
1975/76	5,356	3,454	1,902	64%
1976/77	5,637	3,941	1,696	70%
1977/78	6,614	4,614	2,000	70%
1978/79	7,196	5,044	2,152	70%
1979/80	6,442	4,153	2,289	64%
1980/81	6,639	4,900	1,739	73%
1981/82	5,750	4,843	907	84%
1982/83	6,058	5,113	945	84%
1983/84	5,919	4,953	966	84%

ELMER E. RASMUSON LIBRARY
INTERLIBRARY LOAN-LENDING

TABLE 2

interlibrary loan requests. Success breeds success. The more interlibrary loan requests we can fill, the more we will be asked to fill.

Another area that has been impacted by WLN involvement has been that of reference work. As stated above, the number of public inquiries into the WLN data base has grown at an exponential rate. This has caused increased interlibrary loan requests from the Rasmuson Library to other libraries, although for the most part, these interlibrary loan requests go to libraries outside the state of Alaska. On-line searching services, such as Dialog, BRS, and SDC, have also had a large impact upon ILL-borrowing. (See Table 3). The Rasmuson Library has become a net lender to the state of Alaska, but still is a borrower in the eyes of libraries outside our state.

Having terminals available to users had caused a demand upon their part for additional access to computerized bibliographic data bases. To meet this need, the Rasmuson Library is in the process of implementing an on-line circulation system in 1985 and an on-line public access catalog in the following year. This system, GNOSIS, will not serve just the needs of the Rasmuson Library but will also serve as the on-line circulation/on-line catalog system for all libraries in the statewide University of Alaska system. The system will be run on an HP3000 minicomputer and will utilize the Virginia Tech Library System software. Implementation of the on-line system for the University of Alaska is only possible because of previous involvement in the Washington Library Network, since the data for GNOSIS will come from the WLN data base.

YEAR	REQUESTS SENT
1973/74	1,898
1974/75	1,663
1975/76	1,798
1976/77	2,394
1977/78	4,096
1978/79	1,625
1979/80	1,769
1980/81	1,673
1981/82	1,832
1982/83	2,170
1983/84	2,920

ELMER E. RASMUSON LIBRARY

INTERLIBRARY LOAN-BORROWING

TABLE 3

The GNOSIS University of Alaska system is trying, in cooperation with the 3 other automated systems in Alaska, to design a common interface with the Washington Library Network for the on-line exchange of bibliographic data. This link is symptomatic of the next step in library automation: the linking of local systems with large bibliographic utilities and with each other.

An impact upon technical services of WLN involvement that was not anticipated is the total dependence we now have on WLN for services. We literally cannot either order an item or catalog it without a WLN terminal. Since we closed our card catalog in 1981, we produce our microfiche replacement off the WLN data base. If for some reason, either system crash or telecommunications problems, we cannot access the WLN data base, our work productivity and work flow are severely impacted.

To this point we have reviewed the impact of mainframe computers and associated cooperative endeavors which have impacted upon the Rasmuson Library and its programs. Much more recently the use of microcomputers has become widespread within the library. A junction of historic circumstances caused the rapid onset of the microcomputer revolution. As previously outlined, Rasmuson and its computer needs were a low priority of UACN compared to central administrative needs and the demands of academic units.

Additionally, experience has shown that the University's central mainframe computer is changed about every five years. Since 1970, the University has had an IBM, a Honeywell, a VAX and now another IBM. Each time a change has been made, specially-developed software programs for library activities have had to be reconfigured to meet the new software requirements of a different mainframe. The low priority given to library needs has caused delays and problems each time. All of the above circumstances have combined to make microcomputers and their relatively modest cost an attractive alternative to continued dependence upon UACN.

To assess the extent of microcomputer activities at the Rasmuson Library, interviews were conducted with all 20 professional staff and many of the 43 clerical staff employed by the library. A few of the over 100 part-time student employees were interviewed as well. Answers to the following questions were elicited and tabulated: Do you use a library-owned microcomputer in your work? What kind? What types of software do you or have you used? What types of final products have been produced? What problems have you encountered in using the microcomputer? What are the advantages of using a microcomputer? Do you own a personal microcomputer? What kind? Have you ever used a private microcomputer for library work? In what ways? Was compatability with library microcomputer hardware and software a consideration when you purchased your microcomputer? If you do not own a microcomputer, are you considering the purchase of one? Results of these interviews are summarized in Table 4.

Microcomputers began to be used extensively by the Rasmuson Library in spring, 1981. Three Hewlett-Packard (HP) 120's and 125's were obtained. The library accounts clerk utilized one for compiling soft accounting ledgers using CONDOR (tm) software.

MICROCOMPUTERS AND USES IN THE RASMUSON LIBRARY

Hardware	No.	USES				
		WORD PROCESSING	INDEXING	ACCOUNTS	FORECASTING	GRAPHICS
Library-Owned						
H-P 120	3	3	3			
H-P 125	3	3	3	1		
H-P 150	6	6	3	3		
Apple II+	2	2	2	1		
IBM-PC	8					
Osborne	1	1	1			
Total	22	19	12	5		
Employee-Owned						
Osborne	4	4				
KAYPRO	2	2				
Apple II+	7	7				
Apple MacIntosh	1					1
Texas Instruments	1	1				
H-P 120	1	1	1	1	1	
IBM-PC	2	2	1			
Vector IV	1	1				
None	11					
Total	29	18	2	1	1	1

Table 4

The administrative assistant began word processing of letters, mass mailing, reports, etc. using WORDSTAR (tm) software. Within the Alaska and Polar Regions Department, the HP was used for word processing of letters, reports, bibliographies, want lists, etc. utilizing WORDSTAR (tm) and WORD (tm) software. An index of photographic collections in the Manuscripts and Archives section was initiated utilizing CONDOR (tm) software. At the same time, a faculty member in Alaska and Polar Regions began to use his privately owned Osborne microcomputer for various library-related projects.

Following these initial applications, the number and variety of hardware machines and software programs expanded rapidly. In the past year, five different types of microcomputers were in use for word processing, indexing, spreadsheets, graphics and modeling. In the past month, the Rasmuson Library has begun to receive eight IMB-PC's. These are intended to be used as terminals to access the Washington Library Network and, secondarily, as individual microcomputers.

While the microcomputer applications to date have been quite varied, they to tend to fall into certain categories. All microcomputers are utilized for word processing, manipulation of data or subject fields. Another common use has been indexing, including photographic prints and negatives, archival movie film footage, newspapers, and indexes to two monographic-length bibliographies. Projected indexing projects include an index to Rasmuson's extensive collection of sheet maps of Alaska and its regions. A third common activity has been for maintenance of library accounts and ledgers in at least three localities. Some forecasting and graphics uses have also been made.

The use of microcomputers in the operations of the Library has implications for traditional library functions such as bibliographic control of information and user services. We expect that the current tidal wave of dependence upon electronic control of bibliographic information for internal use and user services will continue. Some implications are clear; others are in the realm of the future.

One problem is that of compatability among a variety of hardware and software microcomputer configurations. The Alaska and Polar Regions Department has attempted to limit hardware to Hewlett-Packard microcomputers and associated software. It has also decided to limit word processing applications to WORDSTAR (tm). However, the Library will soon be using IBM-PC's to access the WLN data base and as microcomputers. This will create an additional set of compatability problems within the library program.

With each passing month, it becomes more evident that an index which provides improved bibliographic control and user access to information in a collection or particular subject may have limited value if it is not integrated into a larger arena with a wider audience. This realization has led to the examination of possibilities for: A) standardization of microcomputer hardware; B) standardization of software; C) development of a common thesaurus of Alaskan indexing terms; and, D) the possibilities of software programs which would interface a variety of microcomputer-produced information files into larger systems.

We already see the need for standards beyond that of a common thesaurus for indexing Alaskana which itself is a troublesome problem. Just as the MARC standards for bibliographic records have made possible the development of bibliographic utilities, such as WLN, and the development of shared on-line public access catalogs, such as GNOSIS, so does indexing need the development of a common data element dictionary. This dictionary would need to cover a wide variety of materials to be indexed, including periodical articles, newspaper articles, oral history tapes, photographic collections, and manuscript collections. In order for a shared indexing system as is envisioned on GNOSIS to work, such a data element dictionary will have to be developed.

Administratively, computer technology has already had its impact upon the Rasmuson Library program. In July, 1983, the library program was reorganized into three large departments: Alaska and Polar Regions, Information Access Services, and Instructional Media Production and Communications Technology. In large part, this reorganization was made necessary by the interrelationship between functions caused by computer technology. The Alaska and Polar Regions Department is responsible for all activities and functions relating to the various Alaska collections, collection development and indexing. Information Access Services is responsible for general library services. IMPACT is responsible for media design and production, distribution, the online systems of the library and distribution.

Another change that has resulted is the need for constant training and staff development. When a unit is involved this heavily into technology of various kinds, staff must be trained to use it in the most efficient manner possible. Any enhancements or changes in equipment or software causes an additional need for training. Any staff turnover requires more training. As a result of this situation, the Rasmuson Library has made staff development and training one of their four program emphases for the entire library/media program. Any program or unit which moves into the use of computing/communications technologies and does not build in provisions for training does so at its own peril.

The above does not fully document the impact of the microcomputer revolution upon the library program. Our interviews of library employees revealed another facet. Most of the professional staff as well as several clericals and a few student employees have their privately-owned crocomputers. In some cases, purchase of personal microcomputer hardware and software was influenced by compatability with equipment already owned by the Rasmuson Library.

Perhaps it is no surprise that employee-owned microcomputers were utilized for exactly the same activities as library-owned microcomputers. It is obvious that the greater the compatability between employee-owned microcomputers and library-owned microcomputers, the greater the probability that library work will be done on the employee-owned microcomputer. There appears to be a cost threshold above which employees will not go to insure compatability with library-owned microcomputers. There is a direct correlation between use of employee-owned microcomputers and employment status.

One consequence of employee-owned microcomputer is that employees are now conducting research activities and other work at their place of residence during work hours. At least one librarian already has need to connect his private microcomputer to the GNOSIS system via telephone modem as soon as the system is operational. It would appear then, that one of the changes which will result from extensive microcomputer use will be less uniformity of work hours and locales in which library staff will conduct their work.

Since libraries are service institutions set up to serve users on an unscheduled basis, what implication does this trend have on the ability of the user to receive professional assistance at his convenience? We already require some user services to be scheduled in advance. Whether this will continue and what the outcome will be is problematic.

Whatever other changes and adjustments that will be made, it is our firm belief that bibliographic utilities such as WLN, large university mainframes, such as UACN, local systems, such as GNOSIS, and the universal availability of microcomputers at the Rasmuson Library has changed forever the way in which we are organized and administered as an information resource and our concept of library service as well. We believe that the result is clearly improved bibliographic control of information resources and vastly improved services to users.

REFERENCES

West, Sharon M. (1984). Alaska Library Network: A Survey and Results. In: Alaska is a Library. The Alaska Library Network, a review of the components, status, and future, edited by Nancy Lesh and B. Jo Morse. University of Alaska, Anchorage Library, 1984.

ESTABLISHMENT AND DEVELOPMENT OF NORTHERN STUDIES SERVICES AND DATABASE:

NORTHERN AND REGIONAL STUDIES AT LAKEHEAD UNIVERSITY

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10th Northern Libraries Colloquy

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St. John's, Newfoundland

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INTRODUCTION

I am sure that many of you, at least those from other areas of Canada, find it difficult to believe that a city and a university which are in the geographical centre of Canada can in any way understand, much less be a part of "The North". Though we are geographically in central Canada, in our problems, attitudes, and lifestyle, we are very much northern centres. We are not part of the far north, but belong rather to the "near north" (Hamelin, 1978), the "mid-north" (Canadian Council on Rural Development, 1976) or the "provincial north" (Weller, 1984). But, no matter what name you give us, we suffer from the same physical and mental isolation as the rest of "the North".

If northness is determined by criteria such as climate, physical distance from major population and political centres, and lack of transportation and communication services, then Thunder Bay is definitely part of the north. It is as far from its provincial capital, Toronto, as Labrador City is from St. John's, or Fort Nelson is from Victoria. It has been on the main rail and shipping lines for many years, but it was not until the early 1960's that the Trans-Canada Highway was completed north of Superior, and it was several more years before the road was paved. Thunder Bay still has its own city owned telephone and hydro-electric companies which were established when the national corporations showed little interest in providing service to our isolated area. Though we are south of the 49th parallel, and only 50 km from the United States border, our temperatures can reach as low as -41° C. As in other northern areas, there is a great deal of resentment because of the control and exploitation of northwestern Ontario which is seen to come from Toronto and Ottawa, and there has even been talk of separation and the creation of a province of Northern Ontario (Brock, 1978).

Lakehead University, being situated in Thunder Bay, and serving the entire Northwestern Ontario region, is in the unique position of being able to study the problems of the north while experiencing some of those problems itself. The University offers students throughout Northwestern Ontario the opportunity to attend university locally, and also sends faculty members out to 19 off-campus centres to offer courses to those unable to attend in Thunder Bay. Though the University is small, approximately 3,500 full-time students, 1,400 part-time students and 250 faculty, there is a great deal of research being done on northern topics, and many of the academic courses have northern emphasis.

BACKGROUND

When I arrived at Lakehead University in the Fall of 1981, I spent much of my time during my first few weeks meeting with deans and heads of academic departments. From the conversations I had it was clear that there was a common thread woven through the programs of the University. Whether it was forestry, geography, geology, languages, or just about any other department, there was some aspect of the North which was being investigated or taught.

Given this focus on northern research I was surprised to find that the University Library was not actively supporting the work being done on the North. Having worked here at Memorial University of Newfoundland where the Library plays an important role in the regional research activities of the university, I was very much aware of what a university library could do to support regional research. Unfortunately, Lakehead University Library fell far short of what I felt should have been done.

Although the Library had several collections of materials with a local and regional focus, there was no organized collection development program for them, nor was the Library providing any specialized or focused information services. It was not at all surprising that in 1979, when the University established a Northern Studies Interest Group, no one from the Library was asked to participate nor had anyone from the Library expressed any interest in participating in the Group.

At this early stage I defined a goal: for the Library to start actively supporting the University's northern and regional research. Unfortunately I had no means of pursuing that goal. It was less than a month later that a federal government program was announced which would allow us to take steps to start reaching this goal.

In the Fall of 1981 the Social Sciences and Humanities Research Council of Canada (SSHRC) announced the Aid to Small Universities Program. This program, which provided a grant of up to $25,000 per year for up to three years, was established to increase and upgrade the research capabilities of small universities. Lakehead University met the eligibility criteria, and was invited to submit a grant proposal. The responsibility for preparing the proposal fell upon the University's Senate Research Committee on which I serve as a member.

Some specific examples of what could be done with the funds were suggested by the SSHRC:

- The establishment of chairs or research centres related to local research
- The development of joint research projects with larger institutions
- The hiring of visiting scholars
- The hiring of qualified research support personnel such as research librarians

This last suggestion presented the Library with a potential means of taking a much more active role in supporting the University's northern research. The only problem to be faced was convincing the Senate Research Committee that this would be the best use of the grant funds. With the assistance of two members of the committee, a political scientist and a geographer who are both involved in the University's Northern Studies Interest Group, I presented a proposal to the Committee that the grant be used by the Library to hire a Northern and Regional Studies Librarian.

The proposal was accepted by the Senate Research Committee. Two major factors played in the Library's favour: first, the proposal would benefit a large number of people in more than half the academic departments, and second, the proposal was "neutral" in that it did not favour any particular department or faculty. The Library's proposal was forwarded to SSHRC which approved it for funding.

The specific proposal was to use 80% of the grant to support, in part, the hiring of a Northern and Regional Studies Librarian and to use the remaining 20% for the acquisition of northern research materials. In addition, the University Library made the committment to establish a northern and regional studies database and to provide necessary clerical and administrative support. The person hired under this grant was to have the following primary responsibilities:

- To provide general reference and information services to faculty, staff, and students at Lakehead University
- To organize and develop a collection of materials on the Canadian Provincial North, with emphasis on Northwestern Ontario

- To assist faculty and researchers by providing specialized information service related to northern and regional studies

It is against this background that Lakehead University Library established and is developing its northern and regional studies services and a northern and regional studies database.

ESTABLISHING THE DATABASE

The first major consideration in creating the Northern and Regional Studies Database was the choice of a system. Because we had virtually unlimited use of the University's VAX 11/780 computer, we decided that whatever system we chose would have to operate on it. We wanted to have creation and editing of records and retrieval on-line, and as simple as possible without compromising on flexibility and retrieval capabilities. We also preferred to utilize an existing system, if possible, rather than having to program our own. DATATRIEVE, a software package available on the VAX 11/780 seemed to meet all of our requirements, especially in the area of retrieval.

Once the system was chosen, we had to define our criteria for material to be entered into the database. Initially, it was decided that the database would include references only to material held at Lakehead University. Later we plan to add material from other Thunder Bay collections such as those of the Thunder Bay Public Library, the Thunder Bay Historical Museum Society, and Old Fort William, a recreated North-West Company fur trade post. Since the database was to be northern and regional in scope, we had to define both of these criteria. There was no problem in defining the regional aspect of the database, since northwestern Ontario has long been a recognized geographical entity. The problems came in deciding what our "north" would encompass.

As far as the purchase of material was concerned, we decided to follow the intent expressed in the grant proposal to concentrate on the Canadian mid-north, or the provincial north. But when it came to inclusion of references for the database, the definition had to be broadened. Most of the research problems being studied concern topics which are not restricted to the mid-north. Research on health care delivery, native peoples, and the socio-economic impact of the boom-bust cycle on single industry towns, is of interest for inclusion in the database whether it concerns the area north or south of 60°; and, of course, forests, geological features, and wildlife do not respect political boundaries. Therefore, we decided to err on the side of too broad a definition, rather than restricting ourselves initially and perhaps later having to go back over the same ground to identify and add arctic and circumpolar material. We did establish a heirarchical geographic area code field in the record so that searches could be restricted to the mid-north, the Arctic, or to specific provinces or circumpolar countries.

BUILDING THE DATABASE

With the scope defined, we were faced with the problem of where to begin. Lakehead University Library, as is the case with most libraries, contains several collections: the main library book collection, a government documents collection, a serials collection, a separate education library, and several "special" collections. One of these special collections contained a fairly good selection of material on Thunder Bay and some additional material on the rest of northwestern Ontario. Because of its small size, approximately 1,600 items, the variety of types of material it contained, and the fact that it had its own shelf list, it became a logical beginning for our database. As this collection was being entered, we were able to work out the bugs of data entry, not only the technical details, but also the allocation of staff time.

Since databases are not much use unless they contain sufficient references to make searching them worthwhile, we wanted to create a large database quickly. A temporary typist was hired to devote up to four hours a day to entering new data and making corrections to the previous day's records. It became a difficult task to keep ahead of the typist in editing records and organizing new items for entry, so material was selected not only on its appropriateness for inclusion, but also on its ease of identification. Once the initial special local history collection had been entered, I selected obvious, easy to identify sets such as material ordered on the SSHRC grant and the theses completed at Lakehead University. As each item was keyed from the shelf list card or order slip, the database record number was written on the card. This recording of our database numbers on the shelf list cards and order slips has proved useful for updating records when an order is received and catalogued, when cataloguing records are changed, or if a book disappears and the records are being withdrawn.

When it came to the government documents collection, because of the inadequacy of the information in the CODOC shelf list, it was necessary to key the records from the documents themselves. When a document was entered, the database record number was written on the document, and we have again found this procedure most useful, especially in alerting the government documents staff that our database records must also be changed when they make changes to their records.

In order to ensure that all new northern materials are entered in the database, I receive all new shelf list cards before they are filed, and all government publications before they are shelved. I also have routed to me new issues of designated serials as they are received.

As stated earlier, part of the SSHRC grant was to be used for the purchase of materials. Having decided to concentrate on acquiring mid-north material, it has been no easy task to identify and locate material for purchase. Most of the items we have ordered we learned about from other libraries' accessions lists or publications such as the Boreal Institute Library Bulletin, from provincial government publications lists or publishers advertisements, and most important, from word of mouth. And, I have found that much of the material is free of charge if you can only manage to track it down.

It is amazing the amount of material which we have been able to acquire through personal contact. Letters, telephone calls, and personal visits have elicited not only references to material for ordering, but also the donation of manuscripts, archival records, offprints, books and journals.

As a result of one such personal visit, Lakehead University Library was given the entire library of the Ontario Royal Commission on the Northern Environment. During its operation from 1977-1983, the Royal Commission amassed a considerable amount of background material on all aspects of the north, as well as having a collection of its own hearings and reports, and all documents written for or submitted to it. Since the Royal Commission was in the process of completing its work and writing its final report, and seemed to have no plans for its library, we offered to take the material off its hands. This one visit resulted in our acquiring more material than it would have been possible to identify and order through normal channels in the entire three years of the grant.

Personal contact with the faculty has increased their awareness of the library's interest in their work, in receiving copies of their papers, and in being informed of items they hear about or pick up at conferences or from colleagues. Now that they are conscious of our interest, and our ability to act on their suggestions, we are finding out about many items which we would never hear about through regular channels, or would hear about at a much later date. We are also now aware of their areas of interest and can anticipate their needs by acquiring material before they request it and by alerting them to new items before the material appears in the catalogue.

DATATRIEVE

DATATRIEVE-11 is a powerful inquiry language and report writing system developed by Digital Equipment for operation on the PDP-11 series of computers. It provides direct easy access to data and allows you to look at data, change it, or sort it interactively. New records can be added to a file, and existing records can be modified or deleted. In addition, DATATRIEVE provides a report generator for creating reports in a wide variety of formats.

DATATRIEVE requires no programming skills. It's simple-to-use interactive command language is easy for even the novice user. However, it has some serious limitations which have forced the Library to find alternatives to handle its database. In particular, the capabilities for creating records work well for short fields, but they are awkward for long fields. Further, in order to modify a field using DATARIEVE it is necessary to re-enter the entire field. DATATRIEVE requires fixed length fields, so you have to truncate lengthy fields or allow for long fields and waste storage space when much of the field is left blank. (Appendix 1 contains a description of the fields used in the Northern Studies Database.) DATATRIEVE's inefficient use of computer resources during processing also causes problems; once the size of the database reached over 1,000 records (it is now over 16,000), the load it placed in the VAX slowed the searching to an intolerable level and created tremendous problems for other users.

To overcome these problems the Library has had to take several steps to "work around" DATATRIEVE. To solve the problems of inputting and editing records it was necessary to find a way of handling these functions outside of DATATRIEVE. The Library developed a series of programs which use Digital's Forms Management System to control the input and editing of records. It is now possible to call up a "coding form" on the screen and enter data or change it. (See Appendix 2 for examples of the screens.) In addition to making input and editing easier, this approach presents another important advantage. The records created through these programs are stored in a much more compact form than the same records created through DATATRIEVE, but it is still possible to use DATATRIEVE to search them. To solve some of the problems of DATATRIEVE's inefficient use of computing resource, the Library uses a local utility, called SELECT, developed by Lakehead University Computer Services. We use SELECT to create subsets of the database, then use DATATRIEVE to perform more complex searches of the smaller file and to sort and format the output.

All of this makes DATATRIEVE sound like a poor system to use for an application such as the Northern and Regional Studied Database. Yet, DATATRIEVE has some very good features which compensate for the problems.

The command language is based on common terms and the syntax is close to natural English. For example, to find records which have the word "health" in the title the command would be:

```
FIND NORTH WITH TITLE CONTAINING "HEALTH"
```

To sort this file by author and title the command would be:

```
SORT BY AUTHOR, TITLE
```

And to print the records which are retrieved the command would simply be:

```
PRINT
```

DATATRIEVE utilizes Boolean and relational operators. (See Appendix 3 for a full list of the operators used.) Parentheses are used to modify the order in which operations are performed. For example, terms may be combined within a FIND command:

```
FIND NORTH WITH (PUBDATE CONTAINING "1983" OR
PUBDATE CONTAINING "1984") AND AUTHOR CONTAINING
"SMITH"
```

While these examples are somewhat trivial, they do reflect the basic command structure of DATATRIEVE.

One of the powerful features of DATATRIEVE which is used extensively by the Library is the capability of creating internal procedures. Procedures are sets of instructions which may be invoked by using a single user-defined command name. These may include prompts for data which is entered by the user and processed in subsequent steps of the procedure. For example, we have created procedures so that when a user types:

```
:A
```

DATATRIEVE prompts the user to enter the author's surname. The user does not have to know the details of how to enter the full command. Similarly, when the user types:

```
:SA
```

the system sorts the retrieved records by author and title without the user having to specify the fields to be sorted. When a user types:

```
:PA
```

this procedure creates a print file arranged by author without the user needing to specify the details of the output format or file.

Procedures can also be imbeded within other procedures. For example, the procedure:

```
:ADV
```

consists of the following:

```
FIND NORTH WITH NOTES CONTAINING *."ADVISOR"
:SA
:PA
```

The first line of this procedure prompts the user to enter the name of the faculty advisor, and then DATATRIEVE carries out the subsequent procedures which sort by author and print the references requiring no further input from the user. (See Appendix 4 for other sample procedures.)

The report writing capabilities of DATATRIEVE allow output to be produced in a variety of formats. When used in conjunction with the concatenation of fields and the redefinition of fields within a record, the report writer presents great flexibility.

DATABASE USE

It was originally intended that the Northern and Regional Studies Database be made available to anyone who had access to the University's VAX 11/780 computer. It soon became obvious that, because of an unanticipated demand for computer facilities by all areas of the university, and the fact that DATATRIEVE uses computer resources inefficiently, this free access was not going to be possible. We have had to treat our database as we do the commercial on-line databases. We must take requests for searches and perform them at off peak times.

As well as providing the anticipated access to northern and regional material, the database has proven to be useful in several unexpected ways. We have spun off a subset of the database which contains only the forestry theses completed at Lakehead University. We presented the School of Forestry with a copy of the Forestry Theses Database and the procedures and a manual for searching it. The response from the Forestry faculty members and students has been very favourable. On this database of only 446 records, DATATRIEVE works very well. Searches are quick and, because of the procedures set up within DATATRIEVE, it is easy for anyone to search, sort, edit, and print references. (See Appendix 5 for a sample search on the Forestry Theses Database.)

This forestry theses subset of the Northern and Regional Studies Database was used to publish a bibliography of forestry theses completed at Lakehead University (Eiber & King, 1984). DATATRIEVE was used to sort the theses and to produce the indexes, and, except for the introductory pages, the report writer was used to print the entire 122 page bibliography.

Our records for Lakehead University theses include the name of the faculty advisor. Both the School of Forestry and the Department of Geography have taken advantage of our ability to print lists of the department's theses supervised by an individual faculty member.

Since free text searching is possible with DATATRIVE and since we have included an added keyword field to enhance retrieval, it is possible to add phrases such as "single industry towns" and "socio-economic impact". These two phrases have received a lot of use not only by our faculty and students, but also by the local offices of the Canadian Department of the Secretary of State and the Ontario Ministry of Northern Affairs, by the Thunder Bay Economic Development Corporation, and by researchers from as far away as Pullman, Washington. Also, a printout on single industry towns was distributed by two faculty members in Social Work and Sociology as a reading list for their courses.

We have no doubt that our having to restrict access to the Northern and Regional Studies Database has limited its use. However, we suspect that the reaction to the database would have been very unfavourable if the public had had to face the frustrations of poor response time and system performance. Also, with several people trying to search the database at once, the entire system could have ground to a halt, alienating not only database users but also the entire University community. The one advantage to this restricted access is that we have been able to monitor the use that people are making of the database, and, in the long-run, this may work to the Library's benefit.

Even though the entire Northern and Regional Studies Database is not accessible as intended, it is gratifying that the forestry theses subset is proving that an on-line database, freely accessible to everyone, is feasible if the computer resources and facilities are there to support it.

REFERENCES

Brock, Gordon (1976). The province of Northern Ontario. Cobalt, Ont.: Highway Bookshop, 139 p.

Canadian Council on Rural Development (1976). A Development Strategy for the Mid-North of Canada. Ottawa: CCRD, 125 p.

Eiber, Thomas G. and King, Marjorie (1983). Forestry bibliography, theses: 1971 - 1983. Thunder Bay: Lakehead University, 1983. 122 p.

Hamelin, Louis-Edmund (1978). Canadian nordicity. Montreal: Harvest House, 373 p.

Weller, Geoffrey R. (1984). Regional development in Canada: the case of the provincial north. Paper presented at the CPSA/AAPS Conference on Regional Development in Canada and Africa: Issues in Public Policy, Harare City, Zimbabwe, 13-17th February, 1984. 46 p.

Appendix 1

Record format

DEFINED FIELDS

FIELD NAME	SIZE
REC-NUM	5
AUTHOR	132
TITLE	264
PUB-JNL	132
VOLUME	33
NUM	33
PUBDATE	33
PAGES	33
NOTES	132
ADD-KEYW	132
CALL-NUM	33
LIBRARY	30
GEOCODE	3
TYPE	2
STATUS	1

REDEFINED FIELDS

AUTHOR-PARTS REDEFINES AUTHOR

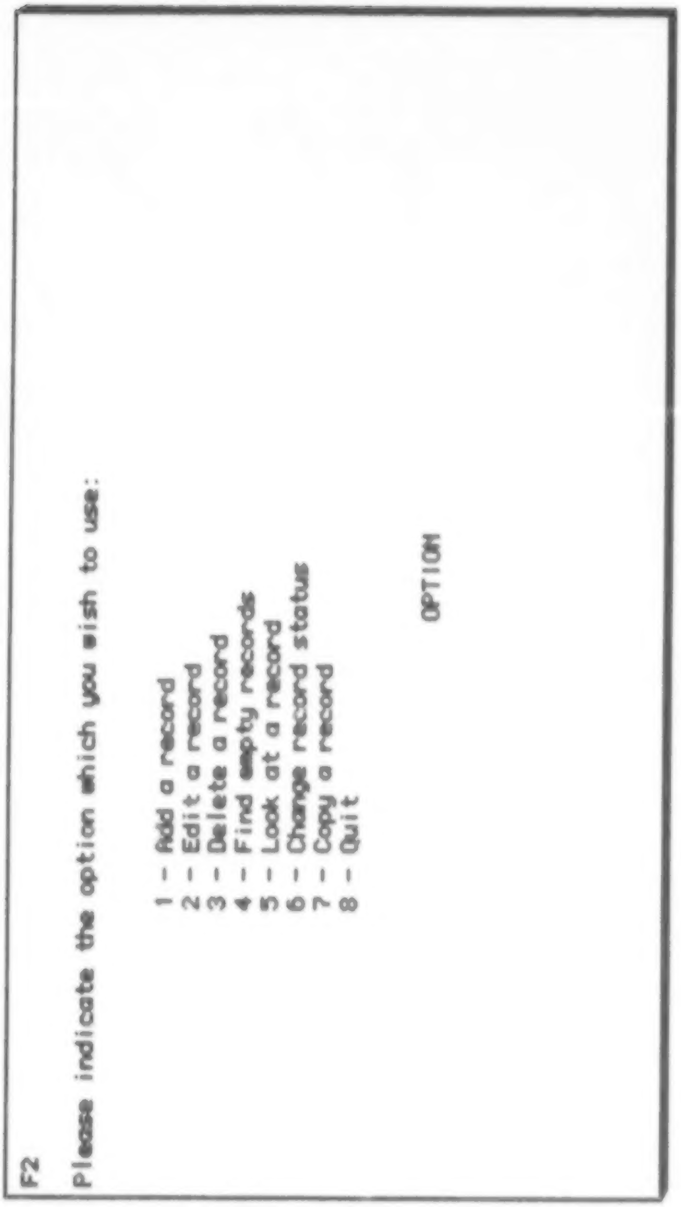
AUTHOR-1	30
AUTHOR-2	102

COMPUTED FIELDS

```
F1 COMPUTED BY
    PUB-JNL||" "|VOLUME||" "|NUM||" "|PUBDATE||" "|PAGES||" "|NOTES
F2 COMPUTED BY
    AUTHOR||", "|PUBDATE
```

Appendix 2

Sample screens
(menu)



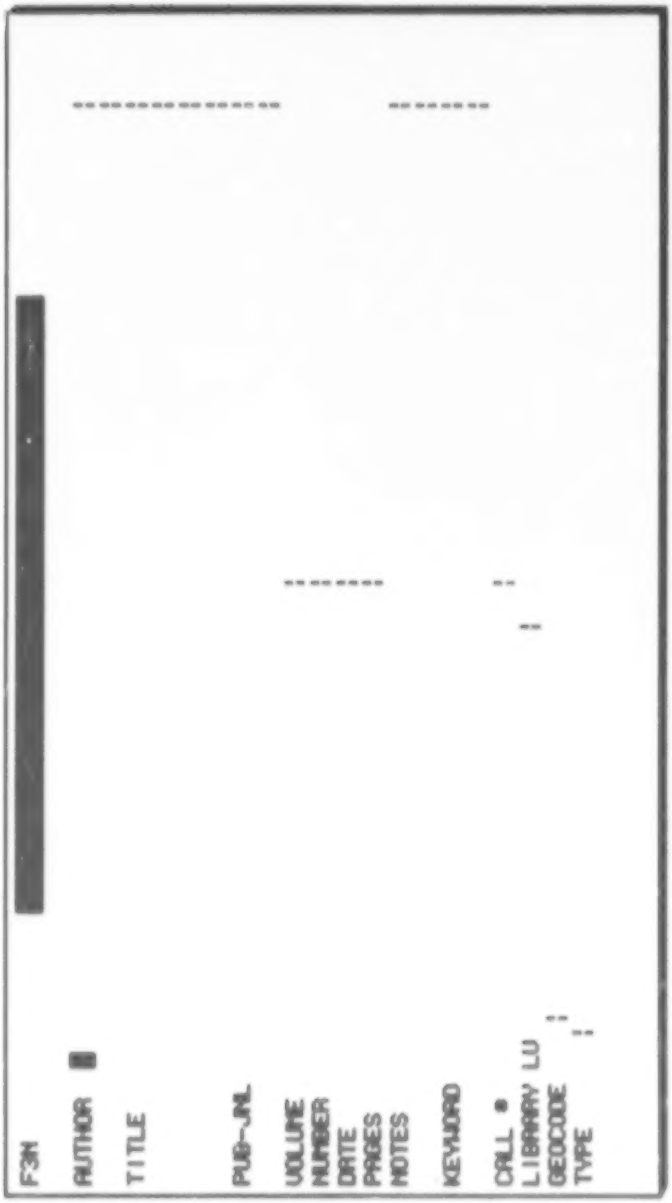
```
F2
Please indicate the option which you wish to use:

        1 - Add a record
        2 - Edit a record
        3 - Delete a record
        4 - Find empty records
        5 - Look at a record
        6 - Change record status
        7 - Copy a record
        8 - Quit

                                OPTION
```

Appendix 2

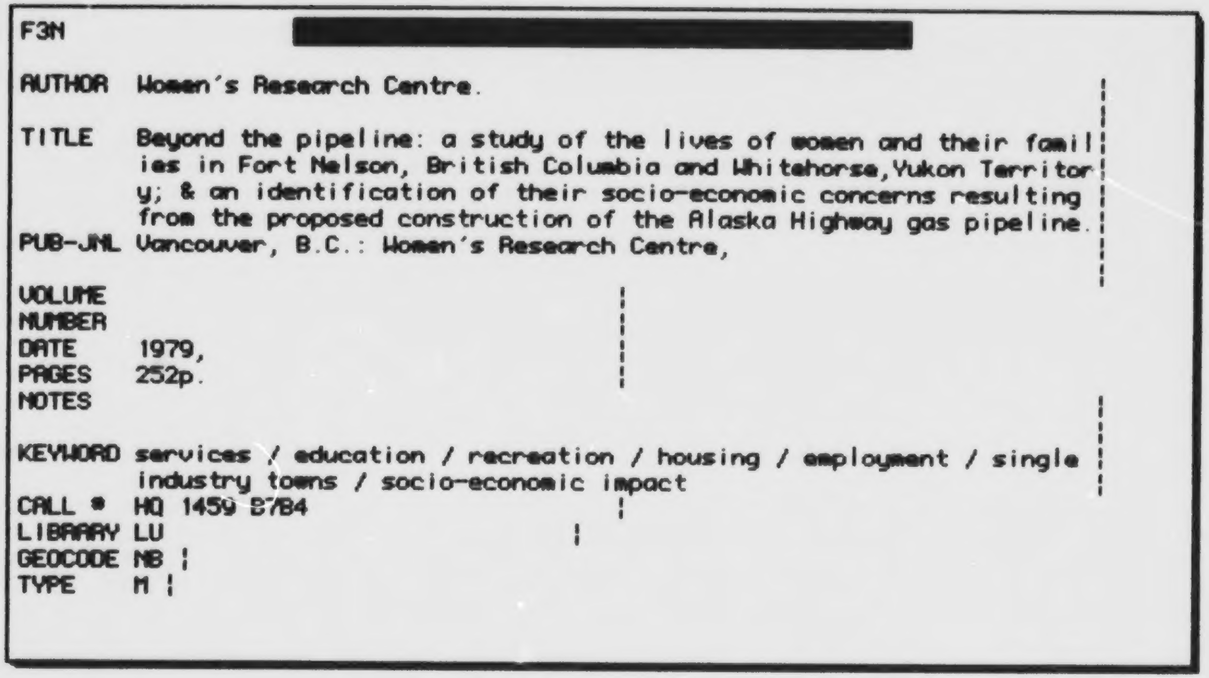
Sample screens
(blank input)



```
F3N
AUTHOR
TITLE
PUB-JNL
VOLUME
NUMBER
DATE
PAGES
NOTES
KEYWORD
CALL #
LIBRARY LU
GEOCODE   --
TYPE      --
```

Appendix 2

Sample screens
(edit)



```
F3N       [redacted]

AUTHOR   Women's Research Centre.                                        ¦

TITLE    Beyond the pipeline: a study of the lives of women and their famil¦
         ies in Fort Nelson, British Columbia and Whitehorse,Yukon Territor¦
         y; & an identification of their socio-economic concerns resulting ¦
         from the proposed construction of the Alaska Highway gas pipeline.¦
PUB-JNL  Vancouver, B.C.: Women's Research Centre,                         ¦

VOLUME                                   ¦
NUMBER                                   ¦
DATE     1979,                           ¦
PAGES    252p.                           ¦
NOTES                                                                      ¦

KEYWORD  services / education / recreation / housing / employment / single ¦
         industry towns / socio-economic impact                            ¦
CALL #   HQ 1459 B7B4                    ¦
LIBRARY  LU                            ¦
GEOCODE  NB ¦
TYPE     M ¦
```

Appendix 3

DATATRIEVE Boolean and Relational Operators

EQUAL	"True" if the value of the field is equal to a value expression.
NOT EQUAL	"True" if the value of the field is not equal to a value expression.
GREATER THAN	"True" if the value of the field is greater than a value expression.
GREATER EQUAL	"True" if the value of the field is greater than or equal to a value expression.
LESS THAN	"True" if the value of the field is less than a value expression.
LESS EQUAL	"True" if the value of the field is less than or equal to a value expression.
BETWEEN	"True" if the value of the field is between two value expressions. The first value must be less then the second.

Appendix 3

DATATRIEVE Boolean and Relational Operators

NOT BETWEEN	"True" if the value of the field is not between two value expressions. The first value must be less than the second value.
CONTAINING	"True" if the value of the field contains a value expression.
NOT CONTAINING	"True" if the value of the field does not contain a value expression.
IN	"True" if the value of the field is a code in a table.
NOT IN	"True" if the value of the field is not a code in a table.

Appendix 4

Sample DATATRIEVE Procedures

A

```
FIND NORTH WITH AUTHOR CONT *."AUTHOR"  Prompts the user to enter the author's
                                         name.
```

ADV

```
FIND NORTH WITH NOTES CONT *."ADVISOR"  Prompts for the advisor's name.
:SA                                      Sorts records by author.
:PA                                      Prints the references.
```

AND

```
FIND NORTH WITH (TITLE CONT *."TERM-2 FOR TITLE FIELD" OR ADD-KEYW
   CONT *."TERM-2 FOR KEYWORD FIELD") AND (TITLE CONT "TERM-1 FOR
   TITLE FIELD" OR ADD-KEYW CONT *."TERM-1 FOR KEYWORD FIELD")
                                         Prompts for two search terms in two
                                         fields. Both terms must appear in the
                                         record, but may be in either title or
                                         added keyword fields.
```

DA

```
SORT BY AUTHOR,TITLE                     Sorts references by author and title.
REPORT ON TI                             Presents output at the terminal.
SET REPORT-NAME="LAKEHEAD UNIVERSITY LIBRARY"/"NORTHERN STUDIES
   BIBLIOGRAPHY"                         Prints this heading at top of each page.
SET LINES-PAGE=55
PRINT SKIP,COL 3,AUTHOR,SKIP,COL 5,TITLE,SKIP,COL 5,F1,SKIP,COL
   5,CALL-NUM,COL 74,REC-NUM,SKIP,SKIP,ADD-KEYW,SKIP
END-REPORT                               Formats the output.
```

Appendix 4

Sample DATATRIEVE Procedures

DEL

```
    FIND CURRENT WITH NOT TITLE CONT *."TERM TO BE ELIMINATED FROM
       TITLES"
```

Eliminates false drops.

K

```
    FIND NORTH WITH TITLE CONT *."SEARCH TERM FOR TITLE FIELD" OR
       ADD-KEYW CONT *."SEARCH TERM FOR KEYWORD FIELD"
```

Prompts for one search term in two fields. The term may appear in either field.

SA

```
    SORT BY AUTHOR,TITLE
```

Sorts references by author and title.

T

```
    SORT BY TITLE
    PRINT ALL TITLE,REC-NUM,SKIP
```

Sorts references by title.

Displays titles and record numbers on terminal.

Appendix 5

Sample search of Forestry Theses Database

(User input shown in bold)

```
DATATRIEVE-11, DEC Query and Report System  Response when signed on to DATATRIEVE.

Version: V02.06, 1-DEC-82

Type HELP for help

DTR> @DICT                                  Sets up the data and procedures.

SET DICTIONARY DRA2:[FORTRIEVE]QUERY.DIC

DTR> READY THESES                           Sets up the Forestry Theses Database.

DTR> :KEYWORD                               Searches all fields for one keyword.

Enter KEYWORD: SCARIF                       Note truncation.

[7 records found]

DTR> :TITLES                                Displays titles.
                                            [Underlining of retrieved keywords done
                                            by authors, not by DATATRIEVE.]
Effect of severe windrow scarification on white spruce two years after
planting.

Evaluation of seven different methods of determining mineral soil
exposure.

Evaluation of site preparation by barrels and Bracke scarifier:
preliminary analysis, 1981-82.

Evaluation of the Bracke scarifier in the Lakehead University Woodlot.

Field method for the evaluation of mechanical scarification.
```

Appendix 5

Sample search of Forestry Theses Database

(User input shown in bold)

```
Operational testing of the Bigfoot and Leno scarifiers in the Geraldton
District.

Supervisor's manual to the Bracke scarifier.


DTR> :NARROW                                Prompts for word which must be present.

Enter TERM WHICH ALL TITLES MUST CONTAIN: BRACKE

[3 records found]

DTR> :SORT                                  Sorts records by author.

DTR> :DISPLAY                               Displays full record.

King, Gordon O.
  Evaluation of site preparation by barrels and Bracke scarifier:
  preliminary analysis, 1981-82.
  BSc(Forestry), Lakehead University,   1982, 79p. (Advisor: F. R.
  Clarke).
  chains / silviculture
  Theses BSc 1983 K52                   2832

MacBrien, Susan P.
  Supervisor's manual to the Bracke scarifier.
  BSc(Forestry), Lakehead University,   1982, 83p. (Advisor: F. R.
  Clarke).
  scarification / site preparation equipment / microsite production /
  supervision / silviculture
  Theses BSc 1982 M12                   232
```

Appendix 5

Sample search of Forestry Theses Database

(User input shown in bold)

```
Nesbitt, Mike S.
  Evaluation of the Bracke scarifier in the Lakehead University
  Woodlot.
  BSc(Forestry), Lakehead University,   1982, 40p. (Advisor: F. R.
  Clarke
  and H. G. Murchison).
  silviculture / site preparation / site factors / bracke / LU
  properties
  Theses BSc 1982 N46                          257

DTR> EXIT                                      Exits from DATATRIEVE
```

THE DESIGN OF A CLIMATIC DATA BANK AND INFORMATION RETRIEVAL SYSTEM

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INTRODUCTION

The Climatic Research Unit at the University of East Anglia is a group of scientists concerned with various aspects of climatology and specialising in the study of climatic change. Due to the interests of its founder, Professor H.H.Lamb, the Unit has a particular involvement in polar research. Since its foundation in 1972, the Unit has collected a wealth of environmental material in the form of both data and literature. To catalogue this information and to permit efficient access to users both inside and outside the Climatic Research Unit, a computer-based data bank and information retrieval system has been developed during the course of contractual work for two main clients: the US Department of Energy and British Petroleum Development Limited. It provides access to a bank of climate data and to bibliographies on various topics.

In this paper, we consider key points in the design of the system.

- User needs: the particular needs of all users and potential users were considered of primary importance at all stages of design.
- Cost: it was considered important to keep hardware and software costs to a minimum.

- Standardisation of hardware and software: standardisation can enhance the portability and flexibility of data bank systems.
- Ease of use for a wide range of users: efficient access and information retrieval was considered important particularly for those users with little previous experience of computers.
- Flexibility and ease of development: the system was designed with a certain degree of flexibility to allow for future developments and possible changes of use.

We use the example of the data bank and accompanying documentation developed for the US Department of Energy (DoE) to illustrate these design points. This particular project involved the construction of a data bank of long-term records of monthly temperature and precipitation data on a global scale and the maintenance of information files concerning data sources, availability and quality (Bradley et al., in press; Palutikof and Goodess, in press). This data bank is briefly described before discussing more general aspects of data bank design and management, notably hardware and software requirements, access, information collection and data input, storage and security, and information retrieval.

THE DoE DATA BANK

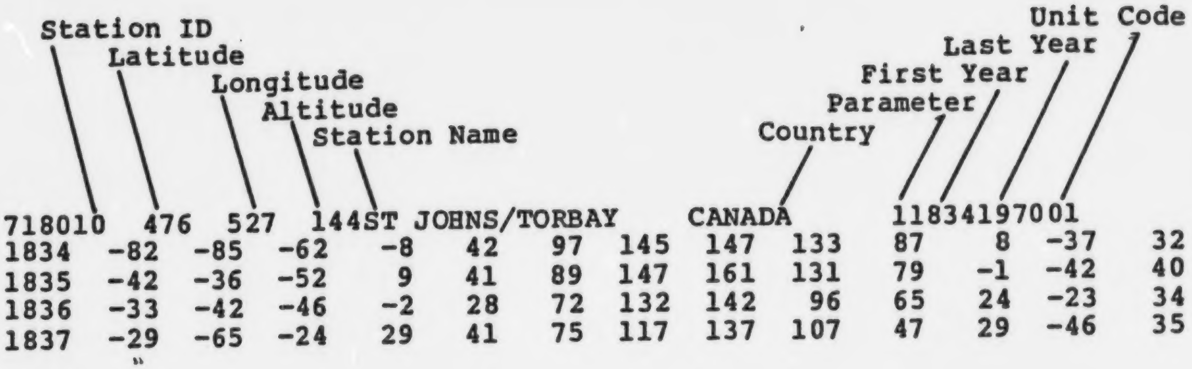
Description

The Climatic Research Unit has been involved in an international project to collect climate data for the post-1851 period that were previously unavailable to the climatological community (Bradley et al., in press). The aim of this work is to improve the climate data base for use in studies of climatic change and, in particular, for the estimation of the likely effects of increasing levels of atmospheric carbon dioxide on climate. Previously unavailable data were located in libraries, archives and in personal files. These were merged with data in existing, digitized data banks. The complete data set was then documented and tested for reliability. During the course of the project, the existing data bank for the late 19th century has been tripled in size and a total of approximately 5 million observations has been compiled.

While this particular exercise was primarily concerned with surface air temperature and precipitation, the Unit also holds extensive collections of data for other parameters, such as sea-ice extent and concentration, wind speed and sea level pressure, each of which has been or could be catalogued in a similar data bank system. Accompanying the actual climate observations are documentation files which provide users with an estimate of data reliability, indicate the original source of the information, and serve as a catalogue for the data bank allowing immediate access to details of data availability by parameter, region, year, and so on.

In the case of the DoE data bank, monthly values of temperature and precipitation are held for around 5,000 meteorological stations, world-wide. The climate records from each station have been digitized and are stored on a mainframe computer. Each station record in the computer file is preceded by an identifying line, a label, which contains the following information: a station identification number, station and country name, latitude, longitude, altitude, parameter code, first and last year of record and a unit code. The format of a typical label and data block, for St. John's, Newfoundland, is illustrated in Figure 1.

The label is also input to a station inventory or label catalogue and this forms part of the documentation system which accompanies the



```
718010  476  527  144ST JOHNS/TORBAY     CANADA      11834197001
1834  -82  -85  -62   -8   42   97  145  147  133   87    8  -37    32
1835  -42  -36  -52    9   41   89  147  161  131   79   -1  -42    40
1836  -33  -42  -46   -2   28   72  132  142   96   65   24  -23    34
1837  -29  -65  -24   29   41   75  117  137  107   47   29  -46    35
```

Figure 1: Label and temperature data block for St. John's, Newfoundland.

718010:	ST JOHNS/TORBAY	CANADA	47.6N	52.7W	144m	1834-1970

Sources: A1, A7, A175

Status: 10 (good record)

Notes: A1: 1/2(max + min). Alt; 1872-1930; 125ft, 1931-1940; 243ft. In 1941 station moved from 47 34'N 52 42'W to Torbay, 47 37'N 52 44'W, alt = 463m. Alt; 1951-1960; 141m, 1961-1970; 144m.
A7: 1/2(max + min). Alt; 38m.
A175: 1/2(max + min). 1871-April 1892; 45 16'N 66 04'W, alt = 40m. May 1892-Mar 1900; alt = 21m. April 1900-Sept 1914; alt = 25m. Oct 1914-June 1966; 45 16'N 66 05'W, alt = 34m. July 1966-Sept 1970; 45 17'N 66 05'W, alt = 30m.
Reliability: Good record from 1898 on. Prior to 1872 there are many missing observations. Station was compared with 716000, Sable Island, and 718130, Natashquan, for the years 1898-1970 and 1914-1970.

Figure 2: Station history for St. John's, Newfoundland.

main data bank. This documentation is designed to allow users to extract from the main data bank those station records which best meet their particular needs. This last point can be thought of as a major design objective in the construction of any data bank: the design of an efficient information retrieval system. The documentation files are stored on a microcomputer, linked to the mainframe that holds the climate data bank itself. The documentation also includes station histories and a source index or bibliography.

The compilation of station histories is a crucial aspect of data bank development (Palutikof and Goodess, in press). They are, essentially, lists of factors which might have affected the reliability of the data. Their compilation enables the data archivist to apply corrections to the data, where possible, and allows users to assess data quality for themselves. To encourage users to benefit from this information, ready access is essential. The station history catalogue consists of, for each station, the label and a list of data sources together with details of site changes, observational methods and any other factors which may affect the reliability of climate data. Each history also contains details of any reliability assessment performed, any correction applied in the course of data homogenization, and a status code which indicates the level of data reliability achieved. A typical station history, again for St. John's, Newfoundland, is shown in Figure 2.

The source index provides a record of all sources, including books, periodicals and manuscripts, from which data have been extracted. Each source reference contains the following information: author, date of publication, title, publishing details, the geographical area for which data are available, an identification number, remarks, and a source origin code. This format, shown in Figure 3, is identical to that used throughout the Climatic Research Unit for bibliographic work. A number of other bibliographies are maintained on the microcomputer system. These cover general topics such as sea-ice research in various regions and recent climatological literature as well as more specific subjects of interest to individual researchers in the Unit.

Links exist between the three components of the microcomputer-based documentation system and between this system and the actual, mainframe-based, DoE data bank (Figure 4). The same label is used to identify a station record and to catalogue that record. It also appears in the station history. Thus, this label, or any part of it, can be used for cross-referencing between files in the system, whether they are stored on the mainframe or microcomputer. The files containing the actual data, the label catalogue and the station histories are most conveniently linked by the source identification number which appears in all.

Having described the structure of the system, we now consider various elements of its design, beginning with the hardware and software base.

Hardware and software

A key feature of the DoE data bank is that it is a hybrid system. It employs both a microcomputer and a mainframe machine. This was deliberate design policy, allowing the particular benefits of each system to be fully exploited. The greatest advantage offered by a microcomputer is the interactive nature of such a system. This type of system is generally easier to operate than a mainframe-based system, particularly for users with little previous experience of

Smithsonian Institute. (1927)
World Weather Records.
Smithsonian Miscellaneous Collections, Vol. 79.

Area: Global
Code: A1
Remarks: Some 19th century data also available in later volumes.
Source: CRU

Authority of the Meteorological Council. (1890)
Meteorological Observations at the Foreign and Colonial Stations of the Royal Engineers and the Army Medical Department, 1852-1886.
H.M.S.O., Eyre and Spottiswoode, London.

Area: Global
Code: A7
Source: CRU

Environment Canada. (1981)
Climatological Station Data Catalogue: Atlantic Provinces.
Atmospheric Environment Service, Environment Canada.
Downsview, Ontario.

Area: Canada
Code: A175
Source: CRU

Figure 3: Source index format: sources of St. John's temperature data.

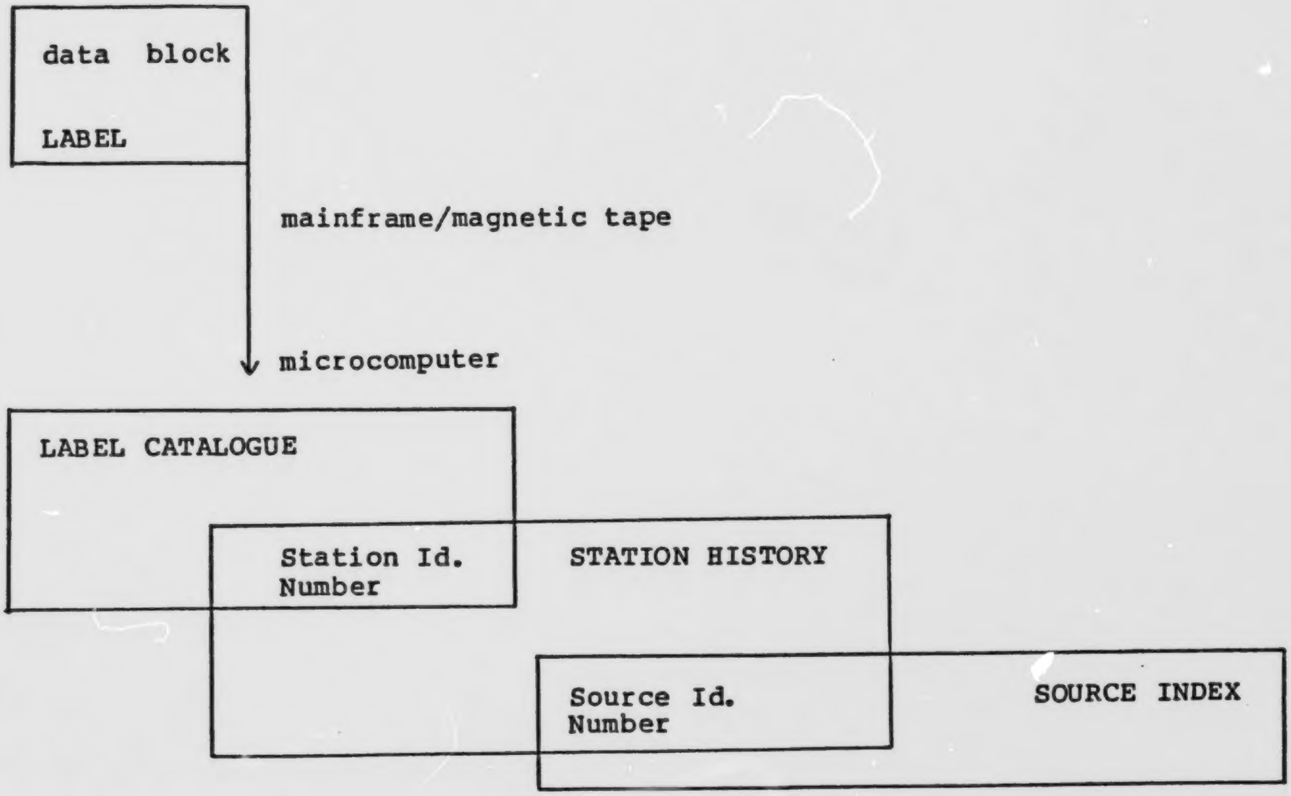

data block
LABEL
mainframe/magnetic tape
microcomputer
LABEL CATALOGUE
Station Id. Number
STATION HISTORY
Source Id. Number
SOURCE INDEX

Figure 4: Links between the three components of the microcomputer-based documentation system and between this system and the actual, mainframe-based, DoE data bank.

computers. The microcomputer is thus ideally suited to the rapid identification and location of data in a station catalogue or in a bibliography. Such machines cannot, however, manipulate large bodies of data as efficiently as a mainframe machine which is better suited to the mass storage of data and to the statistical analysis of such data.

The Climatic Research Unit was restricted to existing mainframe facilities, an ICL machine within the University of East Anglia and an IBM at Cambridge. It was, however, faced with a free choice from a wide range of microcomputers and software. Because of the need for speed and for relatively large storage requirements, it was decided to use 16-bit technology. It was envisaged that portability would be advantageous, allowing clients to set up their own local version of the information system. At the time of system development, one 16-bit microcomputer dominated the European market filling the niche occupied by the IBM personal computer in North America. This was the ACT Sirius. The ACT Sirius SX was selected, which costs around £4,000, and is almost identical in design to the IBM XT. It is based on the 8088 processor and has a 10mb hard disk subsystem. This large amount of internal storage was considered necessary given the need to keep relatively large data bases on line. A 1.2mb floppy disk drive is used for archiving.

To ensure portability, it was decided to base the system on a commercial software package, dBASE II. This package, a "relational" data base system (Gagle et al., 1981), is widely available, costs around £400, and can be enhanced by the addition of various programmes written in the package's own programming language (Freshman, 1984; Simpson, 1984). Thus, there is no reason why the documentation of the

DoE data bank or any subject bibliography should not be transferred to any hardware environment capable of running dBASE II. Files can be transferred to an IBM PC using communications software with relative ease. This means of information dissemination is not widely used at present but, with the advent of (reasonably) standard software and hardware environments, is likely to become much more common in the future. Reports generated by the information retrieval system are prepared for publication using the popular word processing package WordStar which costs around £300.

Access

The number of potential and actual users is an important design consideration and can affect the choice of hardware. The DoE and bibliographic data banks in the Climatic Research Unit are, at present, maintained by a small number of staff who provide a data provision and inquiry service for allcomers. At present, access is restricted. Some data and bibliographies are confidential and access has to be limited for this reason. Moreover, general access is restricted in that the number of machines is limited and it has not yet been possible to install, for example, a microcomputer in the Unit's library. The ideal system would be one based on dedicated machines offering, when possible, unrestricted access to all potential users. Multiple machines or a multi-user system could be used. Where multiple machines are used, a copy of the data bank itself, together with all the software necessary, must be stored on each, independent, machine and updated regularly. With a multi-user system, the software and data bank are stored on one central machine which can be accessed by means of a network of smaller machines or terminals. Given the present state of the microcomputer networking art, the obvious advantages of a linked multi-user system are, to a fair extent, outweighed by developmental problems.

As far as the actual climate observations in the DoE data bank are concerned, many users within the University of East Anglia employ selected data in situ, since the mainframe is best suited to large-scale climate analyses. Other internal users may wish to perform smaller-scale analyses on a microcomputer. Data can be transported to other installations, whether mainframe or microcomputer, with relative ease. Many requests for digitized data come from outside the University. Data can be sent to these users on magnetic tape. Depending on the particular user's hardware, this tape may be created on either the ICL or IBM mainframe. Many external users, however, also wish to use the data on a microcomputer. Data may be provided on floppy disk in Sirius/Victor, Apricot, IBM or Apple formats.

Information collection and data input

Information is collected from various sources. Current climate data are extracted from the CLIMAT network reports (through which weather and climate data are regularly distributed worldwide) and a summary is published in the Unit's bulletin, Climate Monitor. Historical climate data have been collected from archives, libraries, and private individuals around the world (see Bradley et al., in press, for further details). Information for entry to the subject bibliographies is selected from various sources: for example, in the case of Arctic-related bibliographies, the Ocean Engineering Information Centre Bulletin and KWOC index and the Arctic Science and Technology Information System Current Awareness Bulletin and bibliography.

The method of data input is machine and system dependent.

Climate data are input to the mainframe machine by keying direct to disk. Other data are typed directly into the microcomputer using the dBASE II input routines and record format. Error checking (the identification and correction of punching and typing errors) is an important aspect of data input: dBASE II has integrated, on-screen editing facilities which allow the rapid correction of typing errors, once they have been identified on a computer print-out. A semi-automatic method of error identification has been developed for the greater quantities of climate data (Palutikof and Goodess, in press). The mainframe editing facilities currently available in the Unit are slow and cumbersome so the climate data are transferred to the microcomputer, edited on-screen using the word processor system WordStar and then returned to the mainframe. While transfer between mainframe and microcomputer is tedious (it is limited to 1200 baud, at present), the more sophisticated editing facilities available on the microcomputer make this worthwhile.

Where data banks are continually updated, the microcomputer offers further advantages over the mainframe. In many cases, the updating of a microcomputer-based data bank will be automatic. dBASE II, for example, will automatically re-sort bibliographic files stored in alphabetic order when new entries are made to the data bank. Mainframe machines may not offer such facilities.

Data collection, input and error checking are the most labour-intensive and time-consuming stages of data bank construction. It is, therefore, important to employ a system which is fast, simple to operate and user-friendly.

Storage and security

We distinguish between the storage of large quantities of actual climate observations on the mainframe and the storage of associated information and subject bibliographies on the microcomputer.

When immediate and frequent access to the climate data is required, the main data bank is stored on-line on the University of East Anglia's mainframe ICL machine. Temperature and precipitation data are stored separately and are divided into smaller, regional files. The data bank is permanently stored on magnetic tape, a cheap and reliable storage medium of almost unlimited capacity. Data security is further guaranteed by storing the data bank on an IBM machine at Cambridge.

Data input to the microcomputer are stored on both hard and floppy disks. The ACT Sirius SX microcomputer's sealed hard disk has a storage capacity of 10Mb. At present, 4Mb are set aside for data bank work. Allowing for the various command files and ample work space on disk, this is sufficient for the storage of approximately three thousand records of one thousand characters in length. (One character occupies one byte. Bibliographic entries are about 1000 characters in length.) The hard disk can be easily reconfigured to alter the proportion of data base space and work space. The most frequently used data are stored on the hard disk as this offers the fastest access. Other, less frequently used data are stored on double-sided floppy disks with a storage capacity of 1.2Mb, about 1200 bibliographic records.

Data security tends to be more of a problem with the microcomputer than with the mainframe machine due to the nature of both the hardware and software involved. Floppy disks, for example, are more vulnerable than magnetic tape, mainly because of their constant handling and use in an office-type environment. The major risks, however, are due to the simple fact that microcomputers do not have automatic back-up routines. It is always the responsibility of the operator to maintain back-up copies. As with the mainframe, it is absolutely essential to keep a back-up copy of all data on separate disks. The hard disk contains individual data files which exceed the storage capacity of one floppy disk. These files must, therefore, be copied onto more than one disk, a software-controlled process known as archiving. Archiving is slow: to archive one thousand records takes about ten minutes. Nevertheless, the time taken in backing-up is minimal compared with that involved in data entry.

At present, files are backed up on a selective basis, that is, only those that have been edited or updated during a work session are copied. The use of a cartridge streamer could be considered if it was deemed necessary to back up the entire hard disk on a regular basis. To guard against total system collapse, it is also prudent to keep a hard copy (printed copy) of all entries. A good hardware maintenance contract is also advisable, as is the careful use and storage of good quality disks.

AN EXAMPLE OF USE

Information retrieval

To illustrate the system, we consider how it can be used to support an investigation of climatic change in the region of Newfoundland and Quebec. First, we need a list of temperature stations operating since the 19th century in order to determine long-term climatic trends. The bases of the information retrieval system are the searching capabilities and commands of dBASE II. These commands allow a data bank to be rapidly searched for all records which meet any condition or set of conditions specified by the user.

The user can sit at a terminal and make a direct request for, say, the number of stations recording temperature in the study area, Newfoundland and Quebec, prior to 1900 and get an immediate reply - in this case, 12 stations. The user's response may well depend on the reply received. This number of stations, for example, may not be sufficient for a particular analysis to be reliably performed and the search for data may have to be extended into adjacent areas of the northern US and eastern Canada. If the number of stations is sufficient, a printed list of the stations may be requested. The standard dBASE II report form facility is used to print the locational details of each selected station from the label catalogue. This list is given in Table 1.

The bibliographic data banks can be searched in a similar way. Most usefully they can be searched for particular keywords. These keywords include subjects covered by the reference and, where relevant, a list of geographic areas. So, using these keywords, a data bank could be searched for, say, all references to changes in iceberg frequency in the study area published since 1970. The formatting and printing of bibliographic material is more complex and is controlled by programmes written in dBASE II's own programming language. This printing is time-consuming; bibliographic records are printed at a typical rate of two hundred records an hour. This is because of the need for frequent disk access during the reformatting of data rather than slow printer speed. To produce a good copy or report with page numbers and headings, the reformatted data files are edited and then reprinted using the WordStar software package. From start to finish, a report containing, for example, one hundred references selected from a data bank of one thousand records can be

Table 1: List of long-term temperature stations for the Newfoundland and Quebec study area, printed using the standard dBASE II report format.

	LAT	LONG	ALT	STATION NAME	COUNTRY				
716253	451	779	327	BANCROFT	CANADA	1	1882	1980	01
716254	454	772	245	CLONTARF	CANADA	1	1888	1957	01
716255	458	772	125	PEMBROKE EDDY MATCH	CANADA	1	1866	1969	01
716280	454	757	79	OTTAWA	CANADA	1	1872	1980	01
716281	455	764	127	RENFREW SAND POINT	CANADA	1	1885	1959	01
716285	450	748	64	CORNWALL	CANADA	1	1867	1980	01
716305	451	794	290	BEATRICE	CANADA	1	1878	1979	01
716323	453	800	194	PARRY SOUND	CANADA	1	1875	1976	01
717187	485	685	-999	FATHER POINT	CANADA	1	1877	1970	01
717310	463	795	201	NORTH BAY	CANADA	1	1887	1980	01
718010	476	527	144	ST JOHNS/TORBAY	CANADA	1	1834	1970	01
718117	494	637	-999	ANTICOSTI	CANADA	1	1882	1954	01

produced in about an hour. An example page from such a report is shown in Figure 5.

WordStar and dBASE II are used in the same way to select and print records from the source index and station history files. As mentioned earlier, these records will normally be selected on the basis of the station identification number. The station history for St. John's, shown in Figure 2, is found by searching the station history file for the identification number, 718010. Note that a major station move occurred in 1941. Nevertheless, comparison with neighbouring stations suggests that this did not result in a significant discontinuity. The relevant data sources can be found by searching the source index file for the source identification numbers A1, A7 and A175 which are listed in the station history and shown in Figure 3.

Thus, the dBASE II system of information retrieval allows interactive user access to a data bank. Output is obtained immediately, in a matter of seconds if printing time is not included. Access to the mainframe is, by contrast, a batch process. Once particular records have been identified in the label catalogue the relevant data blocks must be identified, using station identification numbers, and then extracted from the main data bank of climate records. This is achieved by submitting an editing job or program to the computer and waiting for the program to run before the output can be collected. The output may consist of a hard-copy and/or a sub-file stored on the mainframe and is generally produced an hour or so after a job has been submitted. Part of the data file for St. John's has been shown in Figure 1.

To return to the example, how does the late 19th century station

Corkum, D.A. (1971)
Performance of formula for predicting the iceberg count off Newfoundland.
Journal of Applied Meteorology, 10, 605-607.

Area: Newfoundland
Subject: Icebergs Prediction

Dinsmore, R.P. (1972)
Ice and its drift into the north Atlantic Ocean.
In "Proceedings of the Symposium on Environmental Conditions in the North West Atlantic", pp.89-128. Special Publication, 8. International Commission for the North West Atlantic Fisheries.

Area: Labrador Newfoundland East Greenland
Subject: Icebergs Sea-ice Remote-sensing Iceberg-drift
Remarks: General review.

Ebbesmeyer, C.C., Okubo, A. & Helseth, J.M. (1980)
Description of iceberg probability between Baffin Bay and Grand Banks using a stochastic model.
Deep Sea Research, 27(12), 975-987.

Area: Newfoundland Baffin Bay Labrador Davis Strait
Subject: Icebergs Modelling Stochastic
Remarks: Simulation of general statistical characteristics of iceberg frequencies.

Ettle, R.E. (1974)
Statistical analysis of observed iceberg drift.
Arctic, 27(2), 121-127.

Area: Newfoundland
Subject: Icebergs Iceberg-drift

Figure 5: Extract from a bibliographic report: references on icebergs for the Newfoundland area.

network compare to that of the present day? This bears on the reliability of our analysis. During the post-1950 period, 43 stations have been operating in the Newfoundland/Quebec region. There has been a significant improvement in the availability of air temperature observations in this area since the late 19th century and this must be borne in mind when considering trends based on the local station network. For example, the late 19th century stations were all in the south of the study area and most were inland, biasing any regional estimate for this period towards these areas.

Analysis

What trends do the air temperature data in the Newfoundland/ Quebec region show? The station data identified in the preceding section were first transformed onto a regular latitude/longitude grid following Jones et al. (1982). Then, a regional average was calculated for the area 45-60N and 50-80W. The time series of annual values is shown in Figure 6. The smoothed, upper, curve shows gradual warming throughout the first half of the 20th century, culminating in the late 1950s, then cooling during the remaining decades of the record. Given these marked long-term climatic trends in the region, it is not wise to rely on a short period of record in assessing future conditions.

The early 1970s was a notably cold period and 1972 was by far the coldest year of the record. This year was also remarkable for the severity of the iceberg season (Figure 6) and there is significant correlation between these two time series. The relationship probably reflects the manner in which changes in the local winds affect both iceberg drift and temperature as much as a direct causal relationship. Enhanced northerly winds will cool the region and advect greater

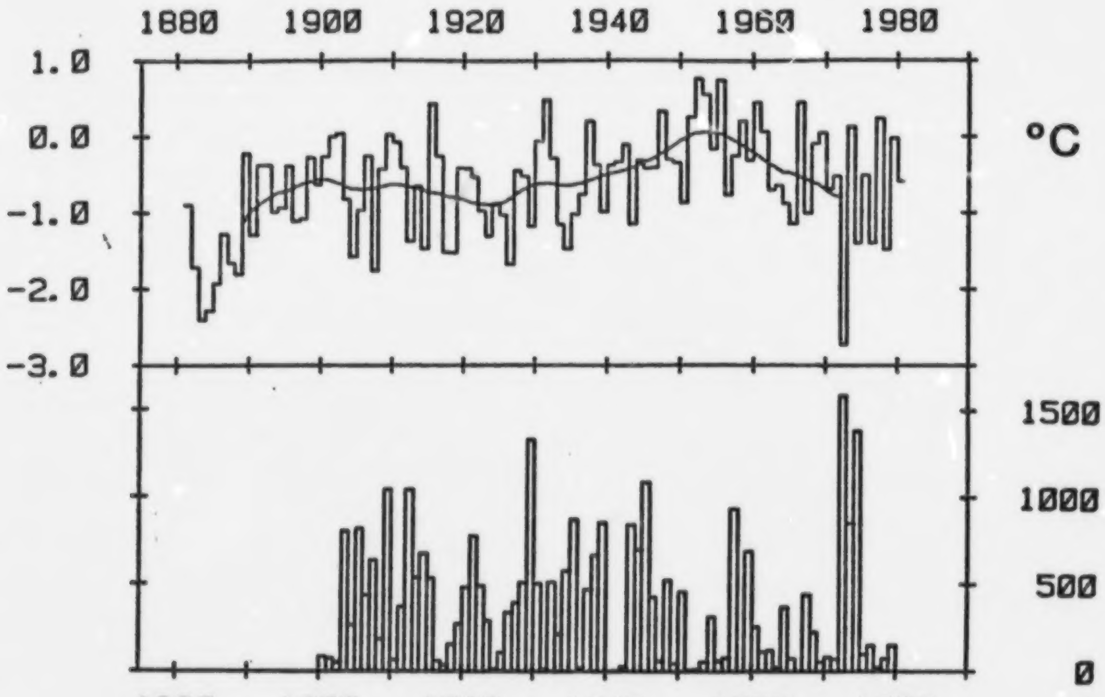


Figure 6: Upper. Surface air temperature in the Newfoundland/Quebec region (45-60N, 50-80W). Annual values are expressed as departures from the 1946-60 reference mean. The smoothed curve reveals the long-term trends.

Lower. Seasonal (September to August) iceberg count south of 48N. The season is dated by the year of the January. Data provided by the US Coast Guard.

quantities of icebergs south. Nevertheless, local temperatures are important in influencing iceberg deterioration rates (Robe, 1980).

The late 19th century data show a marked cold period in the 1880s. We have already noted the spatial bias in coverage during the second half of the last century. Within that period, a significant improvement in coverage occurred about 1890 and this may explain the sudden warming seen at that time. However, this point requires further examination and is beyond the scope of this paper.

The 20th century trends in this region are of particular interest because their timing is very different from those seen in the record of the average temperature of the Northern Hemisphere, a major index of large-scale climatic change (Jones and Kelly, 1983). Warming over much of the hemisphere peaked earlier, in the late 1930s and early 1940s, and has resumed during recent years. Whether or not this presages renewed warming in the Newfoundland/Quebec region, and concomitant changes in iceberg frequency, remains to be seen.

CONCLUSIONS

We have described the design of an information retrieval system covering climate data, books, periodicals and manuscripts, held in the Climatic Research Unit. The use of both mainframe and microcomputer facilities ensures optimal use of the advantages of both. In the case of microcomputers, dissemination of information on floppy disks is seen as a major development in coming years. Key points in the design of the system have been discussed and its use has been illustrated in support of a study of climatic change in the Newfoundland/Quebec region.

This study has shown that marked climatic trends have affected the region during the present century. If the potential impact of future variations is to be incorporated in planning and design exercises, attention must be paid to the lessons of the past climatic record. In particular, it is crucial that the range of variation evident in the longest environmental records is considered and that decisions are not based solely on records of limited duration.

The value of an information retrieval system such as is described here lies not just in cataloguing the actual data that are available but also in documenting factors likely to affect data reliability and conclusions drawn from analysis of the data. For example, we have shown how the changing data coverage during the late 19th century may have induced spurious and misleading trends in our regional temperature estimate. Consideration of data quality is often neglected yet can seriously affect the results of any analysis.

ACKNOWLEDGEMENTS

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REFERENCES

Bradley, R.S., Kelly, P.M., Jones, P.D., Diaz, H.F. and Goodess, C.M. (in press). A climatic data bank for the Northern Hemisphere, 1851-1900. Technical Report, US Department of Energy, Washington D.C..

Freshman, R. (1984). System Design Guide featuring dBASE II. California: Ashton-Tate, 183 p.

Gagle, M., Koehler, G.J. and Whinston, A. (1981). Data-base management systems: powerful newcomers to microcomputers. Byte, 6(11): 97-122.

Jones, P.D., Wigley, T.M.L. and Kelly, P.M. (1982). Variations in surface air temperatures: Pt. 1, Northern Hemisphere, 1881-1980. Monthly Weather Review, 110: 59-70.

Jones, P.D. and Kelly, P.M. (1983). The spatial and temporal characteristics of Northern Hemisphere air temperature variations. Journal of Climatology, 3: 242-253.

Palutikof, J.P. and Goodess, C.M. (in press). The design and use of climatological data banks. In: Climatological Aspects of Desertification: Facts, Theories and Methods. In Press.

Robe, R.Q. (1980). Iceberg drift and deterioration. In: Colbeck, S.C. (eds.). Dynamics of Snow and Ice Masses. Academic Press, New York, pp.211-259.

Simpson, A. (1984). Understanding dBASE II. California: SYBEX, 260 p.

BOREAL INSTITUTE LIBRARY: TESTING NEW METHODS OF ORGANIZING INFORMATION

Robin Minion

Boreal Institute for Northern Studies

During the two years since the last meeting of the Northern Libraries Colloquy, the Boreal Institute Library has attempted three new methods of "controlling" information. A bibliographic series has been developed and two microcomputer software packages have been tested. One of the microcomputer programs is a magazine control system, the other is a program for creating and maintaining bibliographies or reading lists.

BINS BIBLIOGRAPHY SERIES

The BINS bibliographic series is a natural extension of the Boreal Institute Library's SPIRES database BOREAL. The series is compiled monthly from the database, which contains all material catalogued by the Library staff since 1977. At present, the database contains approximately 24,000 items, which is roughly 1/3 to 1/2 of the collection. Thus, these bibliographies do not include everything held by the Boreal Library, but rather only the more current information. Only a small amount of retrospective cataloging has been done, although an attempt is made to enter important older works on a particular topic into the database before producing a bibliography.

Each issue of the BINS bibliographic series covers a different topic. Since the Boreal Library collection contains material in all disciplines, an attempt is made to maintain a rough balance between the "hard" and "soft" sciences. The series began in January 1984. To date, bibliographies have been produced on Native rights in Canada; Land use in northern Canada and Alaska; Caribou and reindeer in Canada and Alaska; Nineteenth Century Expeditions in the Arctic and Canada; Ice in the Beaufort Sea; Myths and legends; and Children's books. At present, the plan is to produce twenty-four bibliographies on various topics and then issue a series of updates.

We can produce two types of bibliographies. The first is a single subject bibliography arranged alphabetically by author, with author, title and geographic indices. The second is a multiple subject bibliography arranged by broad subject categories and further subarranged alphabetically by author. This second type of bibliography also contains author, title and geographic indices.

Basically, to compile either type of bibliography our BOREAL database is searched using Boolean logic. The complete record for each citation contained in the result of the search is then duplicated into a second SPIRES file and indices are built. This duplication means the second set of records can be manipulated without changing the original record. This feature is especially useful for removing unwanted records and for refining the indices.

After all necessary changes have been completed, copies are run off using the printer at the University of Alberta's Computing Services.

This series is available by subscription or on an exchange basis. It is also possible to receive notification of titles as they are produced.

MICROCOMPUTER USE

Earlier this year we acquired an Apple II plus microcomputer and to date have tested two software package programs.

Magazine Control System

One of the two microcomputer software packages we have purchased is the magazine control system. It was written by Bob Stevens and is sold by Richmond Software Corporation and marketed in the U.S. by Follett Library Book Company. This package was written for school libraries and, based on comments heard from other librarians, it appears to work well in this type of setting. However, we have not had a great deal of success in implementing the package. This appears to be due, to some extent, to the complexity of our material.

When we purchased this magazine control system, we were looking for a method of being alerted to missing newspaper and journal issues and subscription renewal dates. Over the years we have found that Native and northern newspapers and journals tend to publish somewhat irregularly, despite any stated frequency. They also tend not to send out renewal notices. By the time we notice that issues have not appeared and checked on the subscription, it is often too late to receive back issues.

With our manual Kardex system we have tried numerous methods, such as coloured tags and dots to alert us to these problems. None have been very successful. When we saw this automated Kardex system being demonstrated at a microcomputer workshop in the spring of 1983, we were impressed enough to give it a try. The program cost $125.00. It was cheap enough that if it did not fit our needs, we would not have lost a great deal of money.

When we tested the program, we found that there were numerous problems with both the structure of many of the fields and the actual functioning of some parts of the program. Many of the fields, for example, were too short for our needs. We have numerous government publications which we enter into our Kardex. Many of them have titles which are too long to fit into the title field. We tried abbreviating the titles but they often became unrecognizable. Also, many of the sort fields, including the title field, are too short to sort our type of material properly. The supplier and call number fields are other fields that are too small to store all necessary information.

An example of a problem with the actual running of the program is the missed issues function. The program, by checking today's date against the date the last issue was received and the frequency of publication, is supposed to print out a list of late or missed issues. Rather, it prints out a list of all missing issues. Richmond Software has been notified of this problem and they are trying to correct it. In the past they have been most helpful about correcting programming flaws.

The last problem I want to mention is the number of diskettes required to hold all this information. Each data diskette holds 300 titles. For each data diskette, there must be 3 missing issues diskettes. The Boreal Library has approximately 800 titles. Thus, we would need at least 3 data diskettes and 9 missing issue diskettes, plus backup diskettes--a total of at least 24 diskettes!

Although it is unlikely that we will use this system to replace our Kardex, we do not regret having purchased and tested it. If Richmond Software fixes up the programming aspects of the package, and they seem very willing to do so, we may use the system for controlling our annual reports. The structure of this material appears to fit the structure of the magazine control system much better than our newspapers and magazines. This is supported by the fact that some school libraries are using the program with success.

Also, by testing this system, numerous problems with our type of material have been pointed out, such as long, similar titles. These problems would have to be carefully considered if we decided to test another package or have programs specifically written for us.

Personal Bibliographic System

The second microcomputer package I want to briefly mention is the Personal Bibliographic System. This package is used to create bibliographies or reading lists. We purchased the package because it was intriguing and reasonably priced. Again, we did not stand to lose a great deal of money if the package did not work.

The Personal Bibliographic System was produced by Victor Rosenburg of the University of Michigan Library School Faculty. It can be used to produce either short, simple bibliographies or long complex ones. When entering data, the user chooses a document type. There are twenty different types such as monographs, sound recordings, data files or conference proceedings. A series of relevant fields then appears on the screen. All fields are optional and of variable length. There is an index field, for example, and an abstract field.

The format of this bibliography is based on the new ANSI (American National Standards Institute) standard for bibliogrpahic reference. Thus, both the punctuation and the format are predetermined. The advantage to this is that the references within a bibliography are consistent. You must be willing, however, to accept this standard.

We have not tested this system thoroughly yet. However, one flaw which has appeared is that the bibliography prints too far to the left margin. Unlike other margins, this one cannot be adjusted.

At the Boreal Library, we have access to two powerful word processing packages on the University's mainframe computer that can be used to produce bibliographies. Thus, at present, we have no pressing need for this package. However, as computing costs rise, we will use the microcomputer for such things as our Contributions Series list and our Publications List.

INFORMATION NEEDS OF THE ROYAL COMMISSION ON THE "OCEAN RANGER" MARINE DISASTER

Heddy M. Peddle

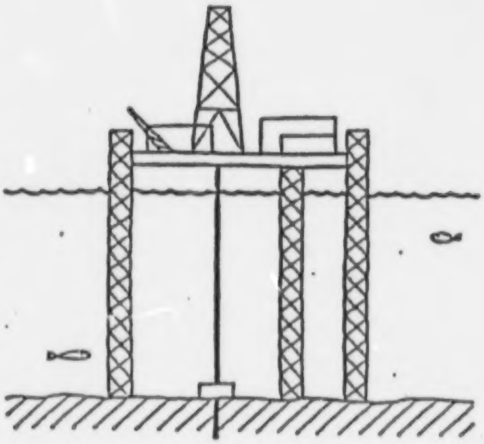
Head
Information Centre
Royal Commission on the "Ocean Ranger" Marine Disaster

INTRODUCTION

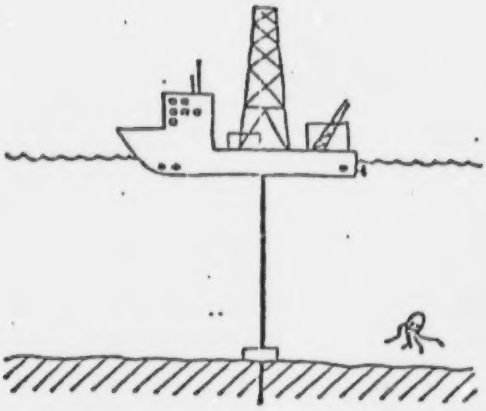
My topic is "Information Needs of the Royal Commission on the "Ocean Ranger" Marine Disaster", but before I get directly into that, I thought it might be useful to examine briefly the relatively new field of offshore exploration in a northern setting.

In Canada, the northern offshore petroleum industry began when the first exploration permits for the Mackenzie Delta and the Beaufort Sea were issued back in the late 1950s, early 1960s. The technology which developed from this experience of drilling in arctic conditions in up to 100 feet of water, and at a considerable distance from shore, provided a technological base for the drilling equipment developed for exploration in the deeper water off Canada's other coastlines, particularly off Eastern Canada.

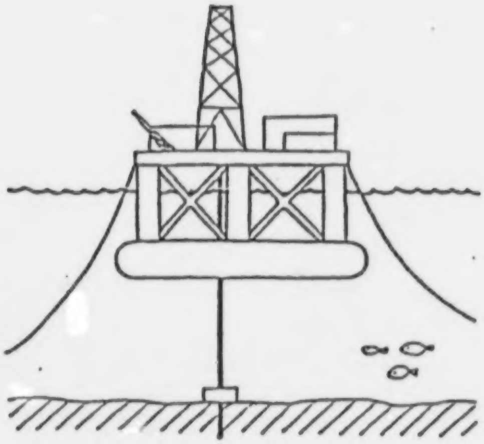
Exploration off Eastern Canada began around 1960, and while the hazards of sea ice in the Beaufort region led to the evolution of various types of manmade islands and mobile drilling units which today serve as exploration and production platforms, environmental conditions off Eastern Canada dictated the development of different technologies. In addition, the experiences of the exploration taking place at the same time in the North Sea region, where conditions are more similar to the North Atlantic, resulted in several designs of mobile offshore drilling units Fig. 1



JACK UP BARGE



DRILLSHIP



SEMISUBMERSIBLE BARGE

FIGURE 1

(or MODU, for short). These units, especially the drillship and the semisubmersible, have the capability of moving off location at short notice, a crucial feature in a region where icebergs, rather than solid expanses of sea ice, and severe storms are frequent, seasonal occurrences.

Most of the exploration on the Grand Banks has been undertaken with the semisubmersible type of drilling unit, primarily of the design with twin pontoons and 6 or 8 stabilizing columns supporting the drilling platform and equipment on the upper decks.

THE "OCEAN RANGER" DISASTER

The "Ocean Ranger" was just this type of drilling unit, and Fig.
arrived on the Grand Banks in November 1980 under contract to 2
Mobil Oil of Canada Ltd. The "Ocean Ranger", at the time of its launching in 1974, was the largest semisubmersible in the world. It had completed an array of drilling programs in a number of diverse geographical locations, all without a hitch, before the disastrous storm, which affected the Hibernia area on the night of February 14-15, 1982, resulted in its capsize.

That night there were two other semisubmersibles operating Fig.
near the "Ocean Ranger" in the Hibernia area which is about 170 3
miles east of St. John's: The "Zapata Ugland" was positioned 19

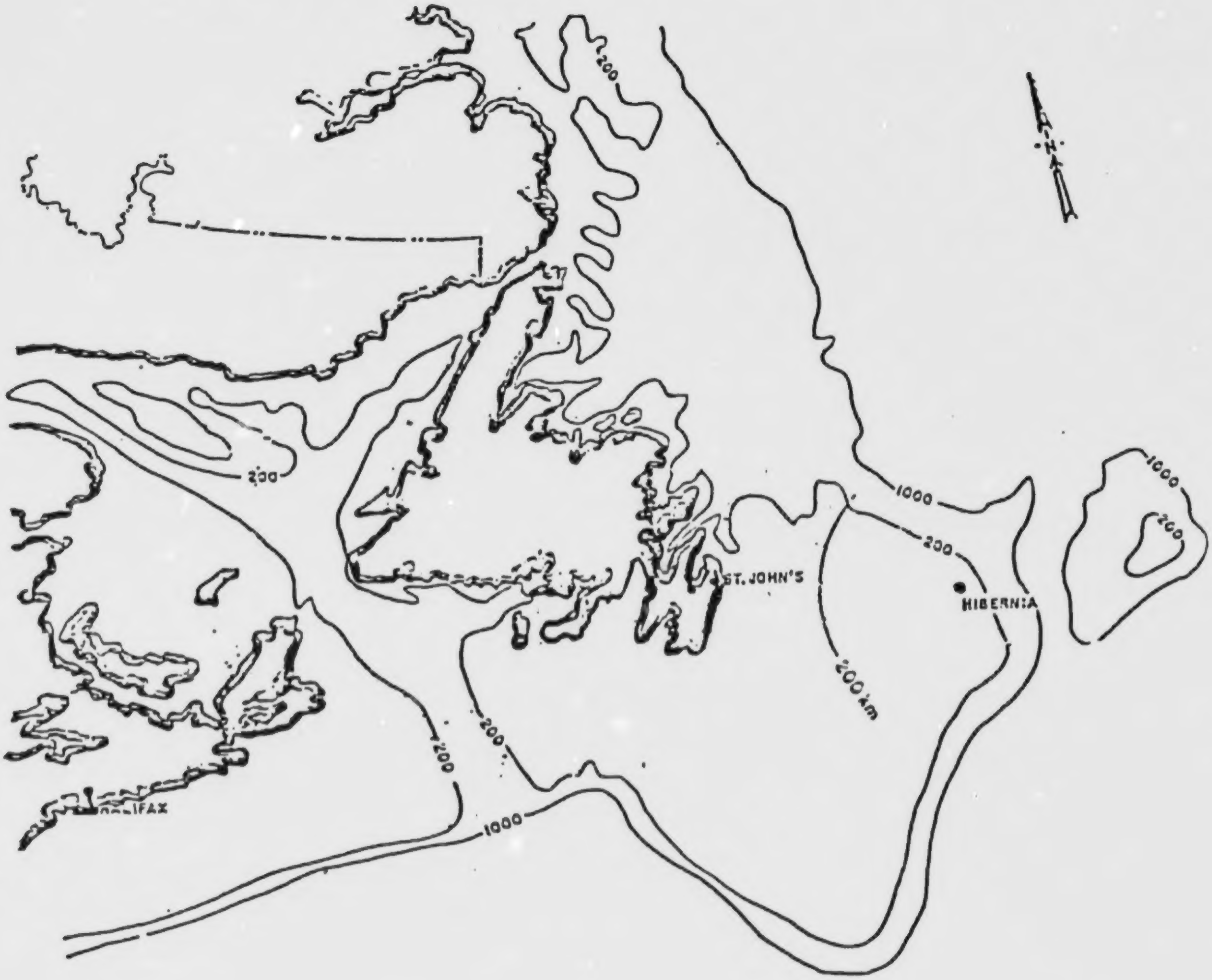

200
200
200
200
1000
1000
200
1000
200
ST. JOHN'S
HIBERNIA
200 km
HALIFAX

FIGURE 2

Royal Commission on the
Ocean Ranger Marine Disaster
Canada

Commission Royale sur le
Désastre Marin de l'*Ocean Ranger*
Newfoundland/Terre-Neuve

COMMISSIONERS:

CHIEF JUSTICE T. ALEX HICKMAN, CHAIRMAN
THE HONOURABLE GORDON A. WINTER, O.C., VICE CHAIRMAN
FINTAN J. AYLWARD, Q.C.
JAN FURST, P.ENG.
M. O. MORGAN, C.C.
H. BRUCE PARDY, P.ENG.

COUNSEL:

LEONARD A. MARTIN, Q.C.
DAVID B. ORSBORN

COMMISSION SECRETARY:

DAVID M. GRENVILLE

FIGURE 3

miles to the north of the "Ocean Ranger"; the "Sedco 706", 8 miles to the northeast of the "Ocean Ranger". Through a chain of events resulting from a coincidence of design inadequacies, severe storm conditions, and a lack of competent human intervention, the "Ocean Ranger", alone of the three rigs there that night, sank with the loss of its entire crew of 84 men. Because many Newfoundland families were directly affected by this loss, the shock felt throughout our community was tremendous.

THE ROYAL COMMISSION ON THE "OCEAN RANGER" MARINE DISASTER

It soon became evident to governments federally and provincially that an inquiry, more substantial than the standard marine casualty investigation normally performed by Transport Canada, would be required. Consequently, in March 1982, one month after the disaster, the Royal Commission on the "Ocean Ranger" Marine Disaster was jointly established by the Governments of Canada and Newfoundland, with six Commissioners, and a set of Terms of Reference which were twofold: Fig. 4

(1) to investigate the probable causes for the loss of the "Ocean Ranger" and its crew;

(2) to examine the safety aspects of the offshore oil industry off Eastern Canada and make recommendations which would improve the safety of workers in the industry.

Royal Commission on the
Ocean Ranger Marine Disaster
Canada

Commission Royale sur le
Désastre Marin de l'*Ocean Ranger*
Newfoundland/Terre-Neuve

INFORMATION CENTRE

BULLETIN

NO. 95

August 8, 1984

Commissioners/Commissaires

Chief Justice T. Alexander Hickman, Chairman/Président
The Honourable Gordon A. Winter, O.C., Vice Chairman/Vice Président
Fintan J. Aylward, Q.C.
Jan Furst, P. Eng.
M.O. Morgan, C.C.
N. Bruce Pardy, P. Eng.

Counsel/Counseiller Juridique

Leonard A. Martin, Q.C.
David B. Orsborn

Commission Secretary/Secrétaire de la Commission

David M. Grenville

Fort William Building
Edifice Fort William
p.o. box/c.p. 2400 St.John's, Newfoundland/St.Jean, Terre-Neuve; A1C 6G3 · 709 · 772-4319, telex 016-4720

FIGURE 4

THE ROYAL COMMISSION'S INFORMATION CENTRE

It became obvious very early that, to meet this mandate, a tremendous amount of information would be gathered, and also generated. The establishment of a Royal Commission Information Centre was an obvious means of exercising satisfactory control of the data collected, and in July 1982, I joined the Commission's staff and found an empty room designated as the Information Centre.

The Information Centre's role is (1) to be the central information service for the six Commissioners, for a staff of 20-25, and also, as required, for the more than 20 consultants and agencies contracted by the Commission to conduct research; and, (2) to be the central storage of documents generated by the Commission in the form of consultants' reports, submissions, and verbatim transcripts of public hearings. A third, additional function of the Information Centre is to provide public access to those Commission documents which are in the public domain, such as the exhibits admitted into evidence during the Hearings and the Hearings transcripts themselves.

In order to achieve some of its aims, the Information Centre and its staff of, at first two, and now three, have undertaken several approaches over and above regular information storage and retrieval:

First, the Centre produces a weekly clipping service for the Commissioners, staff, and a number of individuals associated with the Commission's work. The distribution list for the Bulletin has been fixed at fifty. Items for the Bulletin are selected from the more than fifty periodicals which are scanned for articles relevant to the topic areas included in the Commission's Terms of Reference. The average Bulletin size is approximately eighty pages (doublesided) and issues are distributed each Friday morning. Response to this current awareness service has been very encouraging and provides added incentive to ensure each issue is thorough and timely. Fig. 5

Second, because our role requires an almost "we need it yesterday" response, access to published literature and other collections is facilitated through a contract with the Ocean Engineering Information Centre at C-CORE. This formalized arrangement gains us access to the OEIC collection, the Memorial University collection, MUN Computer Search Services, and to various deposit accounts with agencies whose documents we are likely to require. Our contract with OEIC has allowed us to develop our small collection far more rapidly than would otherwise have been possible, and also avoids the necessity of duplicating materials already held in other libraries.

FIELDS AVAILABLE ON LOADSHEET

RT	(RECORD TYPE)
RS	(RECORD STATUS)
CL	(CLASSIFICATION OR CONFIDENTIALITY)
DT	(DOCUMENT TYPE)
PN	(PERSONAL NAME)
CR	(CORPORATE AFFILIATION)
TI	(TITLE)
CN	(CONFERENCE NAME)
SS	(SOURCE OR SERIES)
CO	(COLLATION)
IM	(IMPRINT)
AD	(ADDRESSEE)
ADC	(ADRESSEE COMPANY)
SE	(SENDER)
SEC	(SENDER COMPANY)
DA	(DATE)
NU	(CALL NUMBER)
CC	(CATEGORY CODE)
IT	(INDEX TERMS)
SUMM	(SUMMARY)
DL	(DOCUMENT LOCATION)
LA	(LANGUAGE)
NOTE	(NOTES)

FIGURE 5

THE ROYAL COMMISSION'S ONLINE DATABASE "RANGER"

Perhaps the most interesting aspect of the Information Centre's collection is the use of a computerized, online database to index items. While the use of an automated database is not at all unusual, its application to the indexing of verbatim transcripts is less common.

The Commission, in the course of its Hearings under Part One of its Terms of Reference, has accumulated over 14,000 pages of official transcripts from the evidence of 102 witnesses over a period of 89 sitting days. During this process, 321 exhibits were entered into evidence.

An automated means of controlling this mountain of information was seen as the only feasible way of ensuring that all evidence would be considered adequately during the course of the Commission's deliberations.

Choosing the appropriate system was the task of Supply and Services Canada consultants who were hired to advise on a system which was best suited to the needs of the Commission and which could be in operation in a short time frame.

The system chosen was an "off-the-shelf" program called BASIS, which is marketed by Infomart in Toronto. During September

1982, meetings were held to identify the specifics of what it was hoped to accomplish, and Infomart used this information to design the Commission's "private file" within BASIS, and to develop the structure of the form to be used to enter, or load, our data onto their computer. After the file design was finalized and named "RANGER", Infomart provided staff training on the weekend of October 24th, 1982, the day before the first Public Hearings began, and six weeks after our first meeting with Infomart.

Perhaps it would be of some interest to go into detail describing the system and how materials are processed for entry into our private file called RANGER.

Fig. 6 The system and the loadsheet used for data input are designed to accommodate a number of different types of documents, such as journal extracts, manufacturers' brochures, and correspondence. The system has features which allow much flexibility; for example, a letter accompanying a report can be indexed with the report, so that it may be retrieved through the name of the sender; or, all materials collected by one particular contract study group can be flagged, either to identify a complete list of that group's materials, or to limit a search to only those particular materials. Also, documents which are considered confidential are designated "classified" or "secret", so that these titles will not show on a screen or printout to users who are outside the Commission.

LIFERAFTS

LIFERAFTS/712
(AS RETRIEVED AFTER O.R. DISASTER)

LIFERAFTS/715
(AS RETRIEVED AFTER O.R. DISASTER)

LIFERAFTS/ANNUAL TESTING

LIFERAFTS/BAFFLES
(IN THE RAFTS' BUOYANCY CHAMBERS)

LIFERAFTS/BOX 1
(AS SALVAGED AFTER THE O.R. DISASTER)

LIFERAFTS/BOX 2
(AS SALVAGED AFTER THE O.R. DISASTER)

LIFERAFTS/BOX 3
(AS SALVAGED AFTER THE O.R. DISASTER)

LIFERAFTS/CONTAINERS
(IN WHICH DEFLATED RAFT IS STORED)

LIFERAFTS/CJ HENDRY (BRAND NAME)

LIFERAFTS/EQUIPMENT

LIFERAFTS/INFLATION METHOD

LIFERAFTS/INFLATION TEST

LIFERAFTS/PAINTER
(LINE ATTACHED TO RAFT WHICH BEGINS INFLATION)

LIFERAFTS/MATERIALS
(INCL. TESTING OF THOSE MATERIALS)

LIFERAFTS/RFD (BRAND NAME)

LIFERAFTS/SEA JAYS (BRAND NAME)

LIFERAFTS/SEAMS/JOINTS
(INCL. TESTING OF SAME & GLUE USED)

VALVES

VALVES/AIR

VALVES/AIR PRESSURE

VALVES/BALLAST CONTROL

VALVES/BLOCK

VALVES/BUTTERFLY

VALVES/CROSSOVER

VALVES/ELECTROMAGNETIC

VALVES/GATE
(SAME AS FABRIE)

VALVES/IDENTIFICATION

VALVES/LEAKAGE

VALVES/POSITION
(POSITION OF VALVES DURING O.R. DISASTER)

VALVES/PUMP ROOM

VALVES/SEA CHEST

VALVES/SEA SUCTION

VALVES/SOLENOID

VALVES/SOLENOID/DESC
(DETAILED DESCRIPTION)

VALVES/STUCK
(REFERS TO ANY STUCK VALVES)

VALVES/SUPPORT USE
VALVES/TESTING

VALVES/TESTING

FIGURE 6

The loadsheet (which comprises one record in RANGER) offers the availability of 23 fields and allows indexing to be performed by personnel with a minimum of training in cataloging. However, the Information Centre has had to develop its own keyword or index terms list, primarily because a standardized thesaurus is inadequate for the detail required when indexing the verbatim transcripts. One needs only to look at the terms "LIFERAFTS" and "VALVES" to see why a tailored list of index terms is in order. Nevertheless, the list has been a major undertaking, and would not be feasible without the aid of the MICOM word processors at the Commission. Fig. 7

The indexing of the verbatim transcripts on a day-to-day basis when Hearings were in session was an interesting, if at times draining, experience, and was shared by two indexers. Each Hearing day resulted in up to 200 pages of transcript which were received by the Information Centre by 10:00 a.m. on the morning following. Each volume was accompanied by a set of audio tapes which proved very helpful in the reading of the testimony. Since we wished to be able to retrieve a volume and page number for each topic covered in evidence, index terms were assigned to each page of transcript, with each separate loadsheet holding an average of ten index terms. The loadsheets also identified the witness, the company he/she represented, the day on which the evidence was heard, the lawyer who was examining, as well as, of course, the topics covered and the volume and page where the Fig. 8

```
4/  FIND PN=SENKOE* AND ITP = CALLS / OVERHEARD
    16  4/      PN=SENKOE*  ** UNIVERSE= 3 **
    92  5/      ITP=CALLS / OVERHEARD ** UNIVERSE= 3 **
     2  6/      PN=SENKOE* AND ITP=CALLS / OVERHEARD

7/  DISPLAY IT FOR ALL

ITEM 1
INDEX TERMS     COYNE THOMAS #V43_7587
                DYKE DOMENIC #V43_7587
                CALLS / OVERHEARD #V43_7587


ITEM 2
INDEX TERMS     ORSBORN DAVID B #V43_7571
                MOBIL OIL CANADA #V43_7571
                SAR #V43_7571
                MAYDAY #V43_7571
                CALLS / OVERHEARD #V43_7571_7579
                HELICOPTERS #V43_7572
                AYLWARD FINTAN J #V43_7573
                LIFEBOATS #V43_7577
                RADAR #V43_7578
```

FIGURE 7

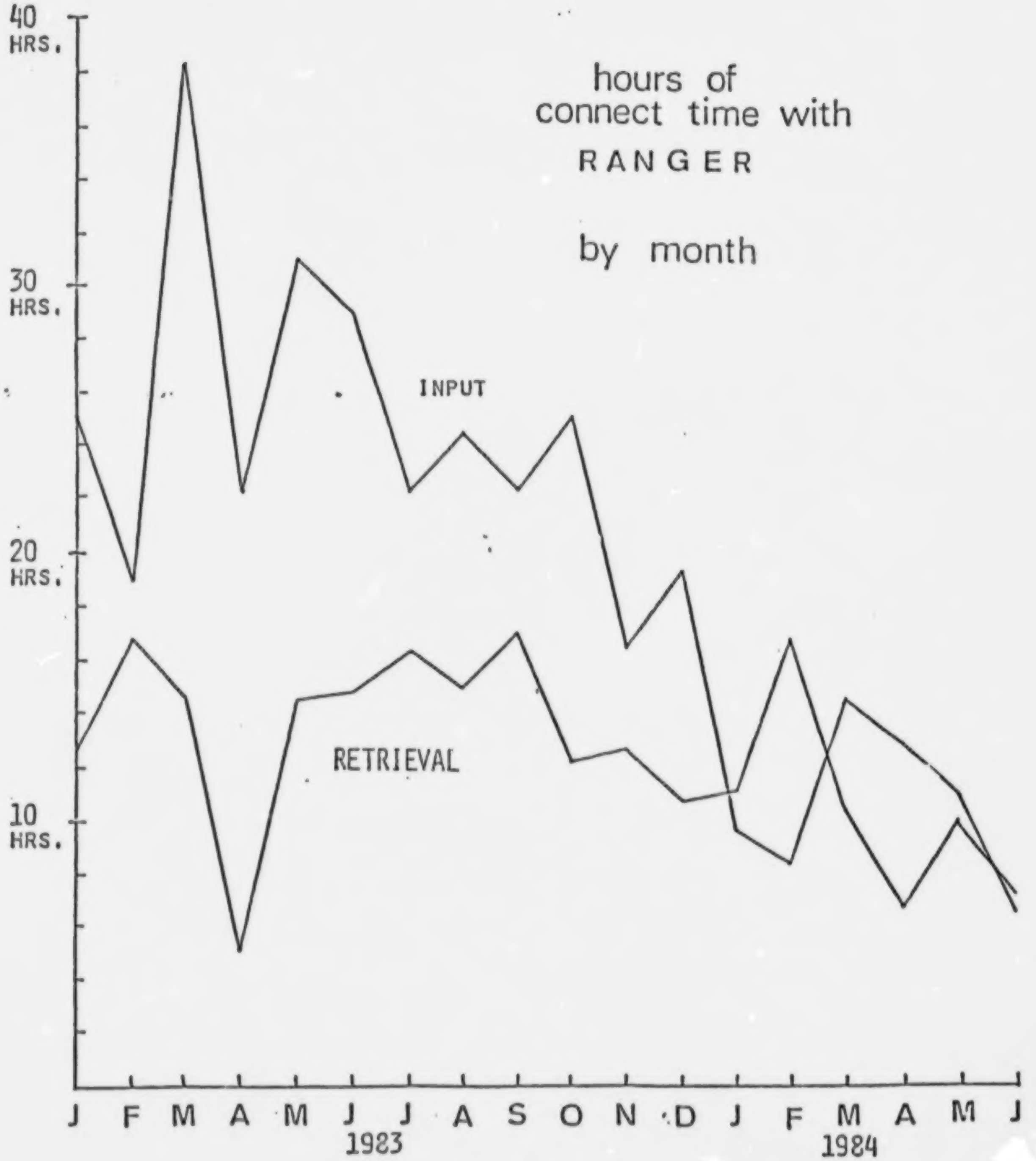

hours of
connect time with
RANGER
by month
40 HRS.
30 HRS.
20 HRS.
10 HRS.
INPUT
RETRIEVAL
J F M A M J J A S O N D J F M A M J
1983
1984

FIGURE 8

discussion could be found. I should mention that retrieval by any of the above is also possible. This system has provided us in-depth control over the evidence obtained in the Public Hearings process, and has proven very helpful during the Commission's consideration of the evidence heard. The ability to respond very rapidly to queries (typically within 5-10 minutes) and to provide all relevant references, generated a high degree of confidence in the system on the part of the Commissioners and Counsel.

RANGER is also used, of course, to store our index for our standard published materials, for which we record the regular "author-title-imprint-subject headings" information. The data provided on each loadsheet by indexers is entered onto Infomart's computers in Toronto via one of the 1200 baud MICOM word processors and Datapac telephone lines. While inputting of data is an ongoing process, RANGER is updated twice a week.

Retrieval of information from RANGER is done primarily through a portable 300 baud printer terminal, but can also be done through the 1200 baud word processor used for inputting. Three staff members provide retrieval services, and although our statistics for online input and search connect time are an indication of the volume of service, they do not accurately reflect total usage of the collection. The collection, which now stands at nearly 9000 separately indexed items (excluding the 1830 Fig. 9

ROYAL COMMISSION ON THE OCEAN RANGER MARINE DISASTER

INFORMATION CENTRE

CIRCULATION STATISTICS

	INTERNAL (COMMISSIONERS AND COMMISSION STAFF)	EXTERNAL (CONSULTANTS, RESEARCHERS AND GENERAL PUBLIC)	TOTAL
1983	573	601	1174
1984 (TO JULY 25)	352	309	661

FIGURE 9

records for the verbatim transcripts) is of a size and organization which does not, in all cases of usage, necessitate signing onto RANGER to retrieve desired material. Fig. 10

CONCLUSION

The collection is growing at a steady rate of approximately 15 to 20 additions per week. The more general but comprehensive nature of the Part Two investigation requires that the Commission have ready access to knowledge of recent and current studies, technologies, and reports relative to the safety of drilling operations in an offshore environment like that off Eastern Canada. The Information Centre is frequently asked by outside users "What will happen to this collection when the work of the Commission is finished?" The answer to that question is not yet readily apparent. Whatever the decision, it will emerge after discussion with both governments prior to the completion of our work. The second and final report of the Commission is expected to be finished by the end of March 1985.

In these past few minutes I cannot possibly have covered all aspects of the Royal Commission's Information Centre and the services it provides. If I have left any glaring gaps, please feel free to approach me at any time. I have brought samples of some of the items which appeared on the overhead and you are welcome to browse through them. Also, we have our 300 baud terminal with us and can demonstrate different aspects of RANGER on request during either the lunch break at 12:00 or this afternoon during the poster sessions. A visit to our Information Centre can be arranged for anyone interested by simply letting me know.

STATUS OF INDEXING OF ALASKA GRAY ENVIRONMENTAL MATERIAL

by

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and

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INTRODUCTION

Let us begin with a definition of gray literature. For the purposes of this discussion we will refer to the reports produced by and for a state or federal agency, and distributed in very limited numbers as gray literature. In academic circles, the material is considered gray because it hasn't been published in refereed journals. On the other hand, this type of report is often a primary source of data, and is therefore important in scientific research. A more graphic definition of gray literature was coined by a colleague: "A document that won't stand up on the shelf by itself."

The Arctic Environmental Information and Data Center (AEIDC), a research institute of the University of Alaska, Fairbanks, and the U.S. Fish & Wildlife Service are independently attacking the problem of access to the gray literature relating to the Alaska environment. We are also actively cooperating on what we hope will be a readily accessible data base.

AEIDC was established in 1972 to facilitate the transfer of environmental information between the university, the state and federal agencies, and the general public. To this end AEIDC produces material designed for a range of users, from media productions for school classes to radio spots for the general public, from local environmental profiles for planners to highly technical reports for land managers and decision makers.

The Information Science Services Division is chiefly concerned with providing access to Alaska environmental literature, particularly the gray literature. Most of our efforts go into identifying and indexing federal and state technical reports. In addition, we make available, on microfiche, uncopyrighted material covered in our indexes. In the past this work has usually been done on contract and has, in most cases, been specific to a geographic region. However, in the last year or so we have begun to take the initiative and index material that is of scientific interest and not already easily accessible. We intend to publish individual indexed bibliographies that will also serve as catalogs to our microfiche. The bibliographies will be available for the cost of reproduction and mailing.

The first of these bibliographic indexes is an index to the 43-volume Arctic Gas Biological Report Series published between 1973 and 1977 by the now-defunct Alaska Arctic Gas Study Company/Canadian Arctic Gas Study Limited.

Soon to follow is an indexed catalog to the 300+ Arctic Gas Companies contractors' reports. These reports are engineering-oriented. The volumes themselves are available for use at AEIDC, but the index and the microfiche copies will make the reports more accessible and available to users away from AEIDC.

We have been funded in part by the University of Alaska to continue work on an indexed bibliography to the scientific material in the published Environmental Assessment of the Alaskan Continental Shelf volumes (the OCSEAP reports). This will include separate reference to appended material that has until now been irretrievable within the 100+ volumes. This index will also be a catalog to microfiche available from AEIDC.

I should add that all of the information in these indexes will be accessible on our in-house data base.

FISH AND WILDLIFE SERVICE DATA BASE

The Fish & Wildlife Service (FWS) is the federal agency charged with the study and protection of fish and wildlife resources. In Alaska they manage wildlife refuges, provide input into the permitting of development projects, do basic research on fish and wildlife apt to be impacted by development, and monitor and respond to environmental pollutants.

FWS data base is an in-house system that contains materials that are physically located in the library. It is essentially a management tool to organize materials that are not cataloged on OCLC. The system is accessible from outside FWS. Theoretically anyone with a terminal and modem should be able to dial up our data base and perform a search. At present, the system has close to 500 citations with approximately 3,000 additional items in the library awaiting entry.

If cataloging for an item can be found on OCLC then the document is entered into that data base (OCLC). If there are no records in OCLC, FWS assesses the value of the document to the service's needs in Alaska. The item is then either discarded or put in FWS data base.

The bulk of the documents in FWS data base fall in the category of gray literature. FWS produces at least 50 such documents a year in Alaska. The majority of these come out as Field Reports. These reports document the research that has occurred on refuges during the previous field season. No one tracks these reports. They are sent to the Regional

Office and filed away. After enough time passes, the files are placed in storage, never to be seen again. The FWS library is trying to provide access to these reports through the data base.

In addition to FWS's gray literature, there is a wide range of material in the data base. These include reprints, congressional documents, miscellaneous Canadian reports, Alaska Department of Fish and Game reports, etc. The collection is not intended to provide complete coverage of any of these materials, only those pertinent to FWS.

The system is extremely easy to use. Users can search on any one of twelve fields or combination of fields. (For example, you could ask for all Field Reports done in 1983. Or you can do a subject search on caribou .) You can see the citation on the screen or have a print-out made or both.

This data base is the first step FWS library has made towards managing its gray literature. Unfortunately, due to a lack of clerical help, progress has been painfully slow.

ALASKA NATURAL RESOURCES DATABASE

The Alaska National Resources Data Base, a cooperative effort between FWS, AEIDC, and U.S. Department of Interior, Alaska Resources Library is alive but comatose at the moment. This data base is independent of the FWS data base and consists of about 5,000 citations, 2,000 from AEIDC and the rest from various other sources acquired through the efforts of John Stout of FWS. The material is read for an initial load on a Dialog file owned by FWS, but at latest reports efforts were stalled on a question of contract costs. (This standoff has been going on for over six months, so the prognosis is guarded.) However, assuming a favorable outcome, the material on the FWS data base is in compatible format for easy addition.

SUMMARY

I have described the different approaches AEIDC, FWS, and ARL are using to gain control of gray literature: functioning data base for in-house material located at Fish & Wildlife Service, a commercially available data base that has not yet become operational, and a series of printed indexes. None so far is the ultimate answer. However, I can report that we are continuing to try and control the elusive gray beast.

NORTHERN INFORMATION INDEXING TECHNOLOGY:
AN ALASKAN APPROACH

E. Marguerite Cornwall
University of Alaska, Fairbanks

In the early hours of the morning I was contemplating the challenge that so many of us are facing in gaining intellectual control over the enormous amount of materials under our care, and I was reminded of an episode described by Captain Bob Bartlett, Newfoundland's great ice captain, on one of his many voyages in the north. Anchored along the coast of Greenland to offload provisions, he suddenly found that a great mass of ice began to calve right above his ship. Like Captain Bob, if we don't get our ship in motion pretty soon, we will lose any hope of recovery. This is the way we feel in the Archives Alaska Polar Regions Department, Rasmuson Library, University of Alaska, Fairbanks.

With the reorganization of the Rasmuson Library in July of 1983, the Archives became officially the Archives, Alaska-Polar Regions and Special Collections Department. Archives formerly had encompassed the University Archives specifically, manuscript collections, historical photographs, rare books, historical and rare maps, oral history and the arctic bibliographer. It now has added the Alaska book collection, Alaska periodicals collection, Alaskan legislative materials, Federal documents and collection development for the entire library. This reorganization, together with the expansion of the physical accommodations due in the spring of 1985, will bring together all elements of Alaskan and polar regions materials administratively into one department and physically onto one floor of the library. Subject access to this large and varied body of materials is a major concern in the new department.

The Alaska book collection has excellent subject coverage through standard cataloguing methods as has the rare book collection. These are fully catalogued and available on the Washington Library Network. Even those books on order or awaiting cataloguing are at least available through title keyword searches on WLN. The periodical collection will have subject access to a limited degree when the titles are entered into WLN as will be happening in the immediate future.

Manuscript collections have had traditional finding aids developed, not really subject access at all, but usually narrative descriptions of the contents of collections, narrative descriptions of the series within collections, followed by listings of folder headings within the series. Not all manuscript collections have finding aids completed however, and one must depend on inventory lists which either accompanied the collections or which were done at the time of accessioning. Thus there is no true subject access to the manuscript collections. Access to the some 114,000 historical photographs in the department has been through a very broad subject arrangement in vertical files and by nature physical arrangement allows only one access point. Since geography is extremely important in our retrieval of photographs, when geographical location is known, that has been the primary folder heading with secondary subjects dependent upon the incredible knowledge of one particular staff member who has been working with the collections for many years.

Over the years there have been many attempts to provide subject access to a variety of other materials: theses and dissertations, periodical and journal articles, newspaper articles, oral history tapes, vertical file materials, etc. A brief look at some of these will provide a background to an understanding of what we will be trying to accomplish.

One of the earliest projects that is still continuing today is the Bibliography of Alaskana. This is an index to the Alaskan content in all periodicals and journals received on subscription by the Rasmuson Library. All incoming periodicals are scanned for Alaskan content - national titles such as Time, Infoworld, National Geographic; foreign titles such as Oilweek, Canadian Journal of Forest Research (although we do limit items to the English language); as well as the many Alaskan periodicals with predominantly Alaskan content. In order to produce this index on the university computer, a special program was written in 1973 and that program has been the basis for many other indexing projects since 1974.

As with most pieces of software the Bibliography of Alaskana program has some good features and some quirks. Using a full text editing program, it allows us to enter the citations directly to the computer with the possibility of indexing immediately or of inserting index terms at a later time. It permits an unlimited number of subject terms to be added, coding for words in the title to be used as subject terms, the pulling out of each author as subject entries and several other desirable features. Problems arise when looking at the filing, for example, and the subject field is chopped after 40 characters. This is troublesome when dealing with government agencies who are constantly finding themselves in political entanglements and need to be indexed as subjects. There is no provision for subdivisions which means that large subjects cannot be refined geographically or topically. Perhaps the most frustrating and precarious element lies in the fact that we are completely dependent upon the university computer system for this program. It has already gone through two transformations as the university has bought new computers and the data produced in the earlier years, although in machine readable format, is completely inaccessible because there are no programmers available who can work with it and there is no documentation. Add to this the fact that the university has just purchased yet another new computer and the Bibliography of Alaskana is again in a perplexing situation.

Putting aside the problems, the availability of this program has prompted much other indexing. There have been indexes to vertical file materials, to reprint articles (periodical articles not received on subscription and not indexed in the Bibliography of Alaskana), to theses and dissertations on Alaska, to the Anthropological Papers of the University of Alaska. One of the biggest and most successful of the indexes done on the program is the Oral History Index which in ongoing, while some of the others are defunct.

This, then, is the total picture, the variety of materials over which we wish to gain intellectual control in a uniform, coordinated manner. Some have had indexing in the past but others, like the manuscript collections, the historical photographs and historical maps have not. At this juncture, the Rasmuson

Library is to be involved in the development of an in-house computer system based on an HP3000 mini-computer (larger than a micro but smaller than a mainframe). It is to be a joint computer, belonging to the University of Alaska libraries: University of Alaska Anchorage, University of Alaska Fairbanks, University of Alaska Juneau and the several community college libraries in the university system. We have been calling the computer GNOSIS as has been mentioned in other papers here. The computer was basically purchased for an online circulation system and an online public access catalog, but one of the segments of GNOSIS is to be online indexing. We have just been given the priority to go ahead, are just beginning now to think software, and are in the very early stages of development. It is this potential which renders all of the efforts in indexing possible, and with this in mind I shall now focus on those aspects of indexing which concern us the most.

Once a move is made in the direction of full subject indexing, THESAURUS becomes the factor of utmost importance. With the need for a thesaurus, one encounters a whole new realm of problems. THe Bibliography of Alaskana was originally designed as a deyword in title index and the program is set up to handle it that way, but it has evolved to full subject indexing. Oral History Index is also doing very good full indexing of the tapes that have been transcribed. In the Bibliography there was no thesaurus chosen in the beginning; it was totally independent. As a list was developed, it was kept up for a while and then it was dropped. It was too difficult, too time-consuming to keep up the thesaurus. Therefore it depended on the indexer's memory of the term and there began a great number of discrepancies, different words for the same subject, different spellings of proper nouns, etc. The Oral History Index vocabulary is "raw", words right out of the field; it is the anthropologists and the archaeologists who are coming up with the terms. When one sees a term such as "seal oil spill" one has to wonder what is meant since there really is not enough seal oil to have an oil spill. It was necessary to return to the transcript for an understanding of the term. There is no control whatsoever over the Oral History terminology. Now the interesting thing that I have found is that once one has a list of words generated, it is not difficult to take that list and whip it into shape, bringing it into line with whatever thesaurus is being used or developed. In this way a whole field of terminology can be developed for someone else to use from that time on. This is the approach that we are taking in the Archives Alaska Polar Regions Department. The thesaurus we are developing will hopefully be available for use beyond just our department's needs.

A comparative study of the terminology that has been used until now has been interesting. I have found that all of the indexes are dealing with the same universal problems of terminology in different ways. For example, in anticipating the way in which a reader will look for a word phrase, the indexer will use more than one approach for the same work phrase: atmospheric electricity and electricity--atmospheric. In many cases, both forms have been included in a single index, which of course has meant a great deal of double indexing. Grouping like items with inverted headings is a common feature: Indians--Athabascans is used in the thesis index, Athabascan Indians in one of the others. Island--Nunivak seems to be stretching the idea a little because it really is called Nunivak Island. However, in one of the indexes all of the islands mentioned are brought together in this way. Spelling discrepancies: Athabascan or Athapascan (with a "b" or a "p") are common. Variant terms appear: does one use oil or petroleum? We have ceremonial houses in the Eskimo areas: kaskiq, karigi. Which dialect does one use? Which language? We have Yupik Eskimo and Inupiat Eskimo. Which one should be used, if either? Stone lamps, lamp, lamps, Eskimo lamps: four variants for the same concept were used in one index. These are the discrepancies one must face in keyword indexing rather than subject heading indexing or when there is no thesaurus in subject heading indexing. These are some of the factors we are attempting to deal with.

A direction which we are now following, was influenced by something outside our control at one point. In a state-wide newspaper indexing project, we decided to participate in a plan developed by Information Access Company, producers of Magazine Index, Business Index and the National Newspaper Index, etc. Their method is to use the Library of Congress Subject Headings as a thesaurus. Most people throw up their hands in dismay when they hear this. LCSH just is not appropriate! However, IAC has also added natural language identifiers to their thesaurus in order to become more timely. The term acid rain is a good example. In Alaska we have a lot of need for area-specific terminology, as is the case in most regions. There are words that have been taken into the local language, as well as a need for more specific breakdowns of general subjects that already exist in Library of Congress Subject Headings. We had a long, hard-fought battle to have IAC allow us to add our own terminology. Over the period of a year and a half before the decision was in our favor, there were only two terms that had been approved by IAC for our use. It was a hopeless situation. We were indexing many articles a week and we could not use the language. "Breakup" is an example, the time of year when the ice breaks up and flows out of the rivers. Breakup is a standard term that has been a part of the local vocabulary for many years and will continue to be used and the LCSH term "spring" is not the same concept. If Library of Congress requires universality and/or endurance as governing factors, this term meets the requirement. There are others: cabin fever, placer mining, qiviut (the underwool of the musk ox), royalty oil, native corporations. We saw the need to specify subsistence hunting, subsistence fishing, subsistence whaling, as opposed to other types of hunting, fishing and whaling.

We are able to use subdivisions in the IAC format and we have also developed some of our own subdivisions, again an area that is not applicable through the strict use of the Library of Congress system. "Natural resources" is a very large subdivision but we needed to break it down more specifically, into "marine resources", "mineral resources", "wildlife resources". We once had a picture of a bear attacking someone inside one of the cities. "Natural resources" just did not seem to fit as a subdivision. "Land policy" is another valuable subdivision. This gives an idea of how we are trying to adapt to an already existing system, keeping it within some kind of order so that we are following a pattern.

The expansion of Library of Congress terms is another feature, with petroleum as a good example. "Petroleum industry and trade" is the general LC heading with a few other more specific terms developed from it. But we have added "petroleum revenue"; the economy of the state of Alaska exists primarily because of petroleum revenue at this point. Also we have the need to be able to forecast what that revenue is going to be so we use the term "petroleum revenue forecasting" developed from a long list of word phrases such as "business forecasting", "cyclone forecasting", etc. under the term "forecasting" in LCSH. We need to pinpoint petroleum discovery as opposed to all of the exploration that is going on, so we use "petroleum discovery". Petroleum exploration, petroleum development and petroleum production are the three major breakdowns of the industry so that we are using those as terms. They are a lot more specific than "petroleum industry and trade". Not all of these terms are being used in the newspaper indexing project as yet but I am using them and experimenting with them in the Bibliography of Alaskana indexing.

We follow the form of Library of Congress whenever we can; we also follow the intent rather than the letter of the law of Library of Congress Subject Headings. Where LCSH states that one can use all of the subdivisions under rulers, statesmen, etc. we will use the etcetera to mean governors, legislators and mayors. Any of the subdivisions under Indians of North America, we would use under the individual tribes.

Thus we are attempting to be organized in our approach. The most important factor is control. We have gone from no control in the Bibliography of Alaskana, Oral History and some of the other indexes, to strict control through IAC and the application of Library of Congress Subject Headings, to what I like to call a "dynamic control". We do try not to proliferate unnecessarily. We document any additions and changes that we have made. We are trying to develop a cross-reference structure. When we go onto GNOSIS we want to be able to bring to it all of these factors, taking into account the best of all the experiences that we have had, the best of all the features. We will be indexing the Bibliography of Alaskana articles, the Oral History tapes, historical photographs, manuscript guides, historical maps, vertical file materials, possibly even the newspapers.

At this point we are trying to solve some of the problems of indexing by going in new directions. We are looking at full-text searching as opposed to assigning subject indexing to analyse the advantages and disadvantages of both in both an online and non-online situation. We are developing support materials through teleconferencing state-wide in the newspaper indexing project. The Alaska Native Review Commission papers will be coming to us and we are working with them to organize their papers in the first place so that the arrangement will suit both of our needs, and we are also working on indexing terms so that they can index the transcripts of their tapes using terms that should merge into our databases. We are also looking at the possibilities of classifying terminology and this could be another entire paper. It is something that is very exciting for us. We are still having to assign several different terms (broader and narrower) in many cases and are building a sophisticated cross-reference system and we are looking at the potential for the classification of terminology so that all related terms will be pulled together in one listing by a classification number. Taking this one step beyond the actual listing, one can see that if the computer is used to make the transition from one term to the other, any number of variants may be linked and the user may search on any one of the variant terms without being aware of how it is happening. This is something that we are exploring and although there is some difficulty in mustering support for the concept, all developments with thesaurus terminology are being designed to enable us to use this concept at a later date.

The whole idea of the amount of materials that we have in the Archives Alaska Polar Regions Department, many linear feet of periodicals, many cubic feet of manuscripts, miles of historical newspapers on microfilm, files of historical photographs, is almost overwhelming. However, a departmental decision has been made that access is more important than development at this point. We are attempting to meet the challenge of subject access head on. As we develop, the sharing efforts in the state of Alaska as indicated in some of the other areas you have and will be hearing about, GNOSIS, collection development and newspaper indexing, will begin to support, benefit from, contribut to, and enhance the effort. Shared newspaper indexing has already provided guidelines for all other indexing in our department. Thesaurus development in the Bibliography of Alaskana and Oral History Index is contributing to the state-wide thesaurus both in subject terminology and proper nouns. The situation is a little like standing at the bottom of Niagara Falls and trying to catch it all in a bucket, frankly, but the Archives Alaska Polar Regions Department is slowly and very surely making progress in the area of subject access to its collections.

COOPERATIVE COLLECTION DEVELOPMENT AND THE ALASKA/POLAR CONSPECTUS:

THE ALASKA EXPERIENCE

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Cooperative, coordinated collection development in Alaska, of which the Alaska/Polar Conspectus is a part, began in early 1982. The need for a statewide collection development strategy has been felt for some time. When funding became available through the State Library's Interlibrary Cooperation Assistance Grants, Dennis Stephens developed a proposal to address the need in a time-honored way: bring an expert consultant to suggest a program for statewide cooperative collection development.

That initial proposal was funded in the Spring of 1982. Subsequent proposals have been funded each year.

The Statewide Collection Development Steering Committee, comprised of 11 members representing the university and community college libraries, the state library, and public, school, and special libraries, was organized shortly after the first proposal was funded. The committee, chaired by Dennis Stephens, directs and implements the statewide project, which has the following goals:

1. To develop a system of distributed holdings, services, and materials preservation that will provide a greater capacity to respond to the knowledge and information needs of Alaska in a more adequate time frame and at significantly lower costs than would otherwise be possible.
2. To distinguish those knowledge and information resources that must be held by each institution from the more detailed resources of research/resource libraries which can be distributed, rather than duplicated at high cost to the state.

The committee was fortunate to have as consultant from the beginning of the project, Dr. Paul Mosher, Associate Director of Collection Development at Stanford University. Dr. Mosher has been virtually granted honorary Alaskan citizenship and his initial report of September 1982, titled A Plan for Cooperative Collection Development Among Alaska Libraries, has served as the basic planning document.

Among the steering committee's tasks has been the sponsorship of an Alaska Collection Development Institute in May 1983, which brought the steering committee and Dr. Mosher together with 17 other Alaska librarians from a variety of libraries for two days of discussion and hands-on experience in collection development policy writing, cooperative collection development strategies, and collection survey techniques. The steering committee also organized and presented the first day of the Alaska Library Association annual conference program in Spring 1984, at which Dr. Mosher was the keynote speaker.

More recently, four members of the steering committee gave a poster session and a presentation at ALA in Dallas.

One of the touchstones of the project has been to begin a survey of Alaska library collections to identify available resources; to help librarians define and identify the core collection of materials necessary to support their particular missions; and similarly to identify areas in which they may not need to collect intensively, and might more effectively depend on another library, so long as there is an understanding of the existence of such materials and cooperative arrangements of their use.

The methodology adapted for the survey was the Research Libraries Group (RLG) Conspectus, which Dr. Mosher had a part in developing for RLG.

A conspectus, according to Webster, is a survey or rapid topical summary, providing an overall perspective. RLG uses the word to mean a tool for comparing and analyzing collections. In the case of RLG it is based on the LC classification scheme, and brings together the sometimes disparate elements of a subject to provide that overall perspective. For example, the conspectus segment for the history of Great Britain includes not only the DA classification but also Population and Demography from HB; Diplomatics, Archives, and Seals from CD; Heraldry from CR;

Genealogy from CA; and Constitutional History from JN. We have not yet entirely solved the problem of a translation for Dewey or UDC libraries, but various techniques are being used by members of the steering committee who have Dewey collections and conversion tables are available in various forms.

The conspectus will typically be used by taking the worksheet with the subject breakdown to the shelves and studying the collection, judging its depth and breadth according to a list of standard evaluation criteria. Along with the conspectus structure and list of criteria, a standard scale is used to evaluate collections in various libraries in a uniform manner. RLG uses a "collection intensity indicator" scale from 0 to 5, together with alpha language coverage codes. The steering committee has adapted this scale to also include alpha categories of levels 1, 2, and 3 to make the scale more suitable for use by a wider range of library types and sizes. A draft adaptation of the intensity indicators to include reading level is also being used in school libraries and work continues on making the conspectus viable for school libraries.

Periodical coverage, special collection material, archives, maps, data files, etc., are also included in this evaluation and the sum total provides a collective analysis of ones collection.

We have recently heard, but not confirmed, that the Alaska adaptations of the RLG collection intensity indicators will be used in the second edition of ALA's Guidelines for Collection Development.

With the help of a student programmer, we have put the conspectus on an Apple computer and data from contributing libraries is being input. The Apple program will be utilized until we are able to load the data on the University GNOSIS System an on-line public access catalog and statewide circulation system, at which point remote input and editing will be possible.

Early on in the project, the steering committee recognized that it would be necessary to design a conspectus segment to serve as the standard survey tool for our Alaska and Polar Regions collections. The RLG conspectus did not have a geographically oriented segment for this area, although they had devised such segments for South and East Asia.

In response to this need, I designed a draft Alaska and Polar regions conspectus. I began by using the University of Alaska, Anchorage Library shelf list. Initial call number breakdowns were selected based on numbers of volumes in our Alaska collection and additions made as required. This is an effective technique for the first stage, but it was readily apparent that what you come up with reflects the specifics of a particular collection: its strengths and weaknesses, and further modification was necessary. At a meeting of the Steering Committee in May further modifications were suggested, primarily additions to provide more chronological and geographical coverage. Additions were made to F-History to provide more specificity. Since our collections are primarily focused on Alaska and Northern Canada, we have enhanced the sections of the conspectus for these regions.

The same technique can be utilized for those collections specializing in Greenlandic, Siberian, Scandinavian, or Antarctic. The geographic focus of northern collections will require this type of conspectus since the RLG conspectus does not provide the specific geographic breakdown.

The second draft of the Alaska and Polar regions conspectus is currently being tested in five libraries with significant Alaska and Polar collections. Data from these libraries will be available in September, at which time further modifications can be made to the worksheets. Collection analyses from these five libraries will form the core of an Alaska and Polar Regions conspectus for Alaska, and with input from other libraries in the state will provide a survey of all significant northern collections in libraries in Alaska.

The benefits of this project are myriad. The analysis has already been helpful internally in establishing budget allocations and assigning acquisitions priorities. Used in conjunction with written collection development policies, the conspectus provides the information needed for cooperative collection development and resource sharing to take place.

We are attempting to formulate a cooperative purchase protocol to be used by Alaska libraries using the information provided by the conspectus, and in September will be presenting a workshop for the Research and Resource Library Directors at which time some of the larger policy matters can be addressed.

I invite Colloquy libraries interested in the project to participate. The Proceedings of the Alaska Library Association Conference held in Sitka in March 1984, provide much of the information you will require to do the collection development policy writing, and draft copies of the Alaska and Polar regions conspectus are available by writing to me.

DRAFT ALASKA AND POLAR REGIONS CONSPECTUS INSTITUTION:

LC CLASS EQUIV.	SUBJECT GROUP	ECS	FCI	COMMENTS
A	General			
AG				
AM				
AN-AZ				
BL	Religion			
BV	Practical Theology			
BV 2000-3705	Missions			
BX 200-9999	Denominations and Sects			
CD	Diplomatics. Archives. Seals			
CS	Genealogy			
D	History (General)			
DK	Russia. Poland. Finland			

DRAFT ALASKA AND POLAR REGIONS CONSPECTUS INSTITUTION:

LC CLASS EQUIV.	SUBJECT GROUP	ECS	FCI	COMMENTS
F909	1896-1959			
F912	Regions, etc., A-Z			
F914	Cities, Towns, etc., A-Z			
F915	Elements in the Population			
F951	Bering Sea and Aleutian Islands			
F965	Territories of the United States (General) Since 1912, Alaska....			
F1001-1140	British America. Canada			
F1091-1095.5	Yukon			
F1091.A1	Periodicals			
F1093	History			
F1095	Regions, etc., A-Z			

LC CLASS EQUIV.	SUBJECT GROUP	ECS	FCI	COMMENTS
F1096-1100.5	Mackenzie			
F1101-1105.5	Franklin			
F1106-1110.5	Keewatin			
F1121-1139	Newfoundland			
	GEOGRAPHY			
G149-570	Voyages and Travels. For travel in special continents and countries see D-F.			
G575-890	Polar Regions. Including exploration, history and description.			
G912-922	Northern and Southern Hemispheres			
GA	Mathematical Geography. Cartography Including topographical surveys of individual countries.			

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ALASKA AND POLAR REGIONS CONSPECTUS

INSTITUTION:

LC CLASS EQUIV.	SUBJECT GROUP	ECS	FCI	COMMENTS
GB	Physical Geography. Including arrangement by country.			
GB400-649	Geomorphology			
GB651-2998	Water. Hydrology. Including ground water, rivers, lakes, glaciers.			
GC	Oceanography			
GN49-296	Physical Anthropology, Somotology			
GN301-673	Ethnology. Social and Cultural Anthropology			
GN700-875	Pre-historic Archaeology			
GR	Folklore			
GV	Recreation			
	SOCIAL SCIENCES			
HB848-3700	Population and Demography. Vital Statistics			

LC CLASS EQUIV.	SUBJECT GROUP	ECS	FCI	COMMENTS
HC	Economic History and Conditions			
HD	Land. Agriculture. Industry			
HD101-1395	Land Including public lands, real estate, land tenure.			
HD9000-9999	Special Industries and Trades			
HE	Transportation and Communication			
HF	Commerce			
HG	Finance			
HJ-9000 9698	Local Finance			
HN	Social History. Social Problems. Social Reform.			
HQ	Social Groups			
HT	Communities. Classes. Races.			

LC CLASS EQUIV.	SUBJECT GROUP	ECS	PCI	COMMENTS
HV	Social Pathology. Social and Public Welfare. Criminology			
	OFFICIAL DOCUMENTS			
J1-9	United States Documents For congressional hearings, reports, etc., see KF.			
J86-87	State Documents			
JS	Local Government			
JX	International Law. International Relations.			
	LAW			
KFA1200-1799	Law of Individual States			
KFX	Law of Individual Cities			
	EDUCATION			
LB	Theory and Practice of Education			

DRAFT ALASKA AND POLAR REGIONS CONSPECTUS INSTITUTION:

LC CLASS EQUIV.	SUBJECT GROUP	ECS	PCI	COMMENTS
LC	Special Aspects of Education			
LD	Individual Institutions: Universities, Colleges and Schools.			
	MUSIC			
ML	Literature of Music			
	FINE ARTS			
N	Visual Arts			
NA	Architecture			
NB	Sculpture			
ND	Painting			
NE	Print Media			
NK	Decorative Arts. Applied Arts. Decoration and Ornament			

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ALASKA AND POLAR REGIONS CONSPECTUS

INSTITUTION:

LC CLASS EQUIV.	SUBJECT GROUP	ECS	PCI	COMMENTS
	LANGUAGE AND LITERATURE			
P	Philology and Linguisitics			
PM101-7356	American Indian Languages			
PN	Literature			
PR	English Literature			
PS	American Literature			
PZ	Fiction and Juvenile Belles Lettres			
PZ1-4	Fiction in English			
PZ5-90	Juvenile Belles Lettres In English and Foreign Languages			
	SCIENCE			
QB	Astronomy			
QC801-809	Geophysics. Cosmic Physics.			

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ALASKA AND POLAR REGIONS CONSPECTUS

INSTITUTION:

LC CLASS EQUIV.	SUBJECT GROUP	ECS	PCI	COMMENTS
QC811-849	Geomagnetism			
QC851-999	Meteorology. Climatology.			
QE	Geology			
QH	Natural History			
QK	Botany			
QL	Zoology			
QP	Physiology			
QR	Microbiology			
	MEDICINE			
RA	Public Aspects of Medicine			
RC	Internal Medicine. Practice of Medicine.			
RC955-962	Arctic and Tropical Medicine			

DRAFT ALASKA AND POLAR REGIONS CONSPECTUS INSTITUTION:

LC CLASS EQUIV.	SUBJECT GROUP	ECS	FCI	COMMENTS
	AGRICULTURE			
SB	Plant Culture			
SB110-112	Methods for Special Areas			
SD	Forestry			
SF	Animal Culture			
SF402-405	Fur-bearing Animals			
SH	Aquaculture. Fisheries. Angling. Including shellfish, crabs, sealing, and whaling.			
SK	Hunting			
SK351-579	Wildlife Management. Game Protection.			
	TECHNOLOGY			
TA	Engineering (General). Civil (General).			

DRAFT ALASKA AND POLAR REGIONS CONSPECTUS INSTITUTION:

LC CLASS EQUIV.	SUBJECT GROUP	ECS	FCI	COMMENTS
TC	Hydraulic Engineering			
TD	Environmental Technology. Sanitary Engineering.			
TE	Highway Engineering. Roads and Pavements.			
TH	Building Construction			
TJ	Mechanical Engineering and Machinery			
TN	Mining Engineering. Metallurgy.			
TP	Fuel			
TP690-692	Petroleum Refining and Products			
TX	Home Economics			

Developments In the Bibliographic Control of Government Publications

George Beckett and Karen Lippold

Queen Elizabeth II Library
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The library world is in a period of rapid change. A survey of the professional literature reveals heated discussion of the advantages or disadvantages of automated library systems, standards, and computers in general. Librarians are aware of technological developments but are often unsure of how to apply these developments for the greatest benefit of their library and their clientele. The following is a review of the major trends which we perceive to be important for the issue of bibliographical control of government publications. While viewed from the environment of a Canadian academic library, many of the observations are equally as valid for smaller libraries which include government publications in their collections.

It is our contention that developments in the field of bibliographic control for government publications have reached a point where librarians must re-evaluate their current procedures with a view to the future. Our society is on the threshold of new ways of accessing information. If we do not keep this in mind we may seriously undermine the value of the library as an information resource centre.

The Past to the Present

In order to understand why the developments of the last ten years are so important for the bibliographic control of government publications it is necessary to understand some of the history of government publication collections. Government publications first became a concern to libraries at the beginning of the twentieth century. In the United States the first depository library system was based upon the Printing Act of 1895. Canada's depository library system began in 1927. As governments grew larger and more active in all aspects of society, particularly in the post World War II era, the number of "free" government publications grew as did their importance as sources of information. It is impossible to conceive of research in many subject areas, including northern studies, without using government publications.

To deal with this growth of publications many libraries instituted separate government publication collections. A 1981 international survey indicated that of a worldwide response of 199 libraries, 46 percent of the North American libraries indicated that they had separate government publication collections while 59 percent had separate catalogues to access their collections (Johansson, 1983). A study conducted by our library in 1981 showed that in Canada of 26 major academic and public libraries 23 libraries had separate collections for government publications (Memorial University of Newfoundland Library, 1981).

Faced with an influx of government publications, libraries were forced to make value judgments on the cost and potential value of processing these materials using normal library bibliographic control procedures. A decision was often made to not treat government publications like other library materials. Separate government publications collections, with access to the collections based upon reference service to assist the patrons to identify the publications they required, were seen as a solution. Typically, printed indexes and catalogues with descriptive cataloguing for "major" publications combined with individualized reference service and shelf arrangement by issuing agency were the only means of access to these collections.

It is important to remember that these decisions were often made before shared cataloguing bibliographic utilities became commonly available in the early nineteen seventies. Traditional library technical processing systems (including cataloguing) were still slow, labour intensive, and expensive. The developments which would change the technical processing systems of libraries had not yet occurred.

The first signs of the rapid changes we experience today appeared in the late 1960's to mid 1970's. Computers were applied to library processes for the first time with varying degrees of success. The new technology allowed new processing systems to be developed in libraries and contributed to the development of shared bibliographic information networks.

The availability of government publications also grew as did the number of libraries receiving them. In Canada the number of depository libraries grew from 25 full depositories in 1953 to 60 full and 2500 selective depository libraries by 1971/72. In-house systems were developed in some libraries to improve bibliographic control and access to separate government publications collections. In Canada, the best known of such systems is CODOC (Council of Ontario University Cooperative Documents Project) or simply the Guelph Document System. These types of systems were, and are, developed in order to provide practical, low cost processing for government publications.

CODOC was designed to provide access to government publications through corporate author, title, series, and **KWOC** indexes as well as through its own classification scheme (Gilham, 1980). The economic justification for such systems was based upon the use of low level clerical staff for coding publications. The resulting records were usually purely descriptive in content since efforts at keyword enrichment or detailed quality control would reduce the cost effectiveness of the coding system (Cannon, 1982).

The greatest developments, and potentially the most important for government publications, have come in the last ten years. Many different developments could be itemized but certain ones stand out as being important. These are:

1. Bibliographic utilities with significant amounts of **MARC** cataloguing copy for government publications. The presence of such records allows for the possibility of shared cataloguing of publications and improved bibliographic control of publications. All of the major bibliographic utilities such as **OCLC**, **UTLAS**, **RLIN**, and **WLN** have libraries that contribute cataloguing records for government publications. **UTLAS**, for example, has 30 Canadian federal government and 19 provincial government libraries participating in its system (UTLAS Inc., 1984).

   As well, major centres such as **NLC** (National Library of Canada), **LC** (Library of Congress), and the United States **Government Printing Office** produce bibliographic records for government publications which are available for use on these utilities. The **CONSER** listing of serials and the **Monthly Catalog of United States Publications** listing of American government publications using full **LC** level cataloguing are two examples of the records which are becoming available for government publications.

   Reports in the literature have cited hit rates for selected government publications of as high as 95 percent for post 1960 United States government publications (Walbridge, 1982). Our experience at Memorial University of Newfoundland has shown that there is a large amount of cataloguing copy available. We find cataloguing copy for approximately 60 percent of our Microlog collection which contains a wide variety of Canadian federal, provincial, local government and private research organization publications. We obtain approximately eighty percent cataloguing copy for paper format publications in our collection using the UTLAS bibliographic utility. We are seeking to access the **DOBIS Search-Only** system which will provide access to the bibliographic records of many of the federal government libraries which use it to catalogue their holdings.

2. Development of sophisticated automated systems for library control of and access to materials. The development and maturing of integrated library automation systems, and particularly the cataloguing, serials control, and public access modules are important. Using anything from a micro-computer to a mainframe it will soon be feasible for any library to use these computer systems to process library materials. Even now it is technically possible for our library to automatically include the entire contents of the **Monthly Catalog** in our catalogue data base. It will then be possible to provide online access to those materials through both descriptive and subject access points.

Revolutionary improvements over manual catalogue systems can be seen in **OPACs** with the matching of the capabilities of keyword access, boolean logic, and controlled vocabularies for subject access to library materials. This is an important feature for government publications which traditionally have had limited subject access. When combined with the development of sophisticated user-friendly interfaces to these automated systems, such as the National Library of Medicine's **CITE** (Current Information Transfer in English) system, the future is bright for improving access to library collections (Siegel et al., 1984). The full effects of this improved access to library materials through **OPACs** has yet to be seen. It will, however, have a fundamental impact upon library services.

Another aspect of these developments is the improvement in the capabilities for communication between libraries. It is already common to use the bibliographic utilities as verification and location sources for inter-library loan. Government publications which are listed in these utilities can be identified and shared for common use.

Improvements in the ability of computer systems to communicate between each other is also significant. In Canada the federal government has provided support for the **NLC**'s development work in the area of **OSI** (Open System Interconnection) which will allow for the direct exchange of bibliographic data between unrelated computer systems. It is likely that within a few years it will be possible to access, search, and transfer records between any libraries which adhere to the network standards under development.

3. Bibliographic Information Retrieval Systems. Systems such as **DIALOG**, **BRS**, **CAN/OLE**, SDC's **ORBIT**, and **QL SYSTEMS** have large files of records which include government publications and information sources. The presence of government publications in these systems is an indicator of the value of government publications. These information retrieval systems are increasingly useful for serious research in many subject fields. As such they are an important means of making library patrons aware of relevant government publications.

4. Cataloguing Code Revisions. There has been much discussion about the changes in cataloguing codes which have occurred in recent years. We believe that the implications of these changes for government publications has been clear. They have helped to simplify the processing and access to most types of government publications. **AACRII**'s preference for title main entry for serials and the simplification of the form of many corporate authors are two examples of improvements over the exigencies of **AACRI**. The simpler it is to process government publications within the standards defined for all library materials the easier it is to justify following those standards.

5. Development of a willingness to consider "cataloguing" government publications. The decisions to include government publication serials in **CONSER** and to fully catalogue all **Monthly Catalog** items can be seen as breakthroughs for the view that providing full cataloguing treatment to government publications is indeed possible and desirable. As shared cataloguing copy becomes available through the bibliographic utilities, the number of libraries cataloguing government publications has grown. In Canada there are at least four academic libraries which attempt to fully catalogue all of their government publications (Memorial, York, Laval, and Victoria). Many other libraries catalogue at least some of their publications and the amount of cataloguing copy available is growing.

This willingness to catalogue government publications is the result of the developments which are reshaping the way libraries process and deal with their information materials. Concomitant with the increase in cataloguing of government publications has been the increased concern for integration of bibliographic record files. The machine readable cataloguing records produced through the bibliographic utilities are the basis of today's **COM** catalogues and **OPACs**.

From the library patron's viewpoint one of the greatest benefits of cataloguing government publications has been to allow integrated access to the library's entire collection through one catalogue and in a format which is consistent with other library materials. The greater the level of integration which exists for access mechanisms to a library's materials the easier and more efficient it is for the patron to identify and retrieve the information which is being sought. This is one of the best arguments for the cataloguing of government publications and it lies at the heart of the re-evaluation that librarians are faced with today in dealing with government publications collections.

The Challenge for Librarians

The challenge that faces us is to plan effectively for an uncertain future in which methods for bibliographic control and access will have changed greatly from those of the past. In the forseeable future all libraries or information centres will depend upon some form of automated system to provide access to their information resources. These systems will be dependent upon readily available files of machine-readable bibliographic data in some standard format. Will government publications be included in these systems and if so at what level of integration?

The danger is that many libraries will still refuse to catalogue their government publications according to the standards which are developing in the library world. Many may feel that it is too expensive to catalogue, even using the bibliographic utilities (Morton, 1982). Or it may be that the thought of trying to convert older publications is just too overwhelming to consider changes to present methods. Others may feel that their locally developed systems, such as **CODOC**, may be entirely adequate.

This is a pernicious idea since what was at the forefront of technology and originality of approach ten years ago may be a dead end in the future. It may be argued that any machine-readable bibliographic record, such as those produced by the **CODOC** system, are as useful for **OPACs** as any **MARC** record. It is possible to merge such records into one catalogue as has been proven at the University of Toronto Library (Hajnal et al., 1977). This creates a problem, however, of lack of uniformity in standards applied to the creation and content of bibliographic records from different coding/cataloguing systems.

Automated information retrieval systems offer many advantages over manual systems but they are also more sensitive to lack of uniformity in data organization and content. Lack of standardization in an OPAC or any automated bibliographic system is a severe limitation upon it's effectiveness. This is as true of lack of standardization in MARC records as much as it applies to the bibliographic records of other systems. Any online data base searcher can avow to the difficulties of efficiently searching an online data base whose coding/cataloguing practices have changed over time.

The literature of the library profession is full of debates over this question of the need for standards and uniformity for online data bases. Are authority files needed in online systems? What are acceptable levels of MARC coding? Won't the computer take care of any problems of inconsistency in records? These are common questions which are being resolved slowly. The truth is that the higher the quality of the data bases which are created the more efficient the retrieval process. The lower the efficiency of the retrieval system the less likely our patrons are to use them and the collections for which the systems are supposed to provide access.

Unfortunately for those libraries with separate systems for bibliographic control of their government publications (whether automated or not) the forseeable future for library bibliographic control systems is oriented to MARC based OPACs for internal library use and bibliographic utilities for shared cataloguing. If integrated and effective access to all library holdings is to be provided government publications must be included in these systems using full cataloguing procedures consistent with the treatment provided for other library materials. The bibliographic control of government publications in libraries must be freed from the limitations imposed by a heritage of separation and isolation from mainstream library activities. To insure the best possible service and use of government publications we must re-evaluate how we deal with government publications and prepare for the future which is upon us.

REFERENCES

Gillham, Virginia.(1980). The Guelph Document System. Government Publications Review. V.7A: 211-216.

Hajnal, Peter, et al.(1977). Marc and CODOC: A case study in dual format use in a university library. Journal of Library Automation, V.10: 358-373.

Johansson, Eve.(1983). A study of the availability and use of official publications in libraries. Interlending and Document Supply. V.11: 100-103.

Morton, Bruce.(1982). Implementing an automated shelflist for a selective depository collection. Government Publications Review. V.9: 323-344.

Memorial University of Newfoundland Library.(1981). Unpublished summary of government documents questionnaire responses.

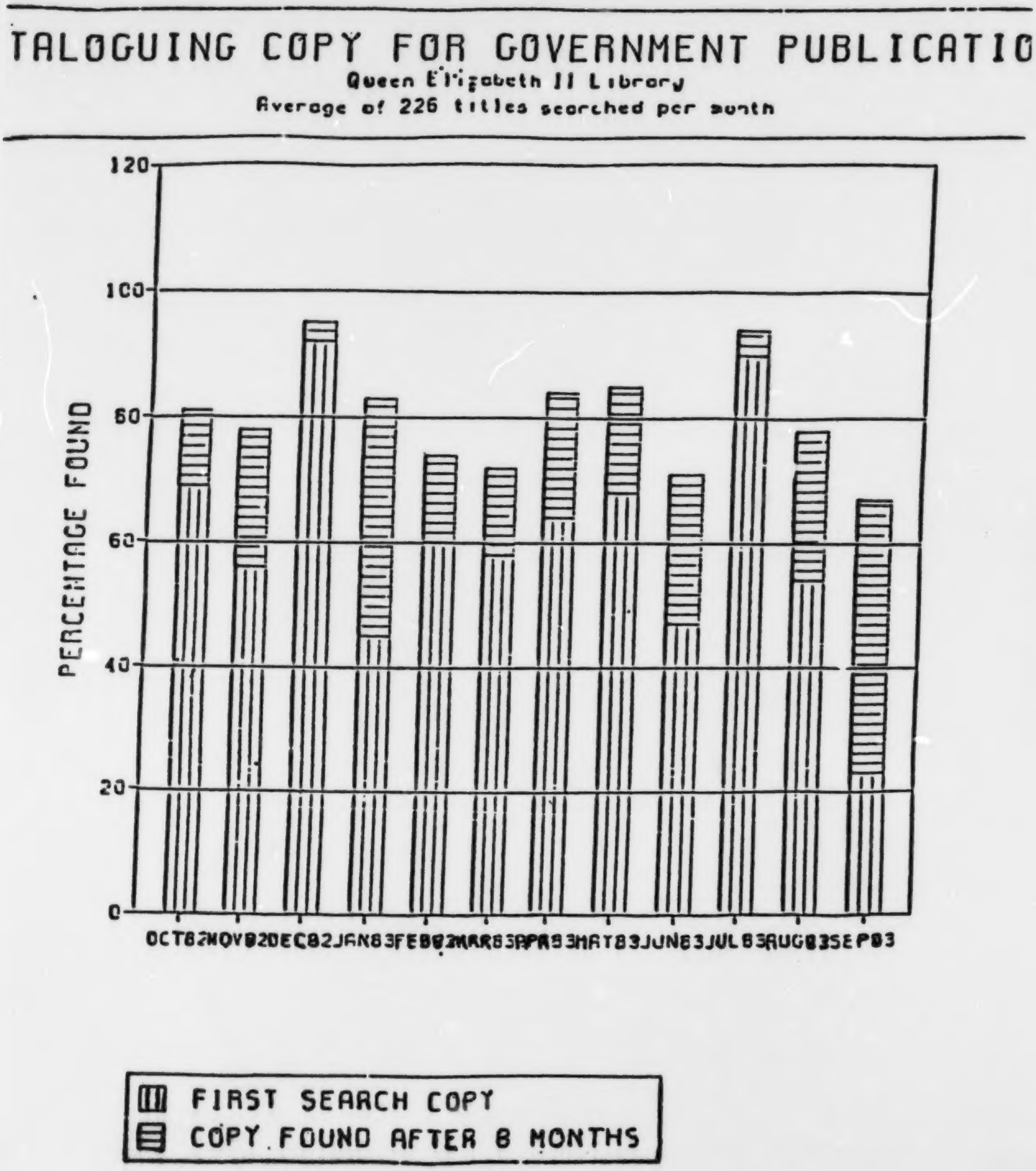
Pemberton, John E., ed.(1982). The bibliographic control of government publications. Oxford: Pergamon Press, 172 p.

Siegel, Elliot et al.(1984). A comparative evaluation of the technical performance and user acceptance of two prototype online catalog systems. Information Technology and Libraries. V.3: 35-46.

UTLAS Inc.(1984). WHO institution and source codes with WHO code group. Toronto: UTLAS Inc., 8 p.

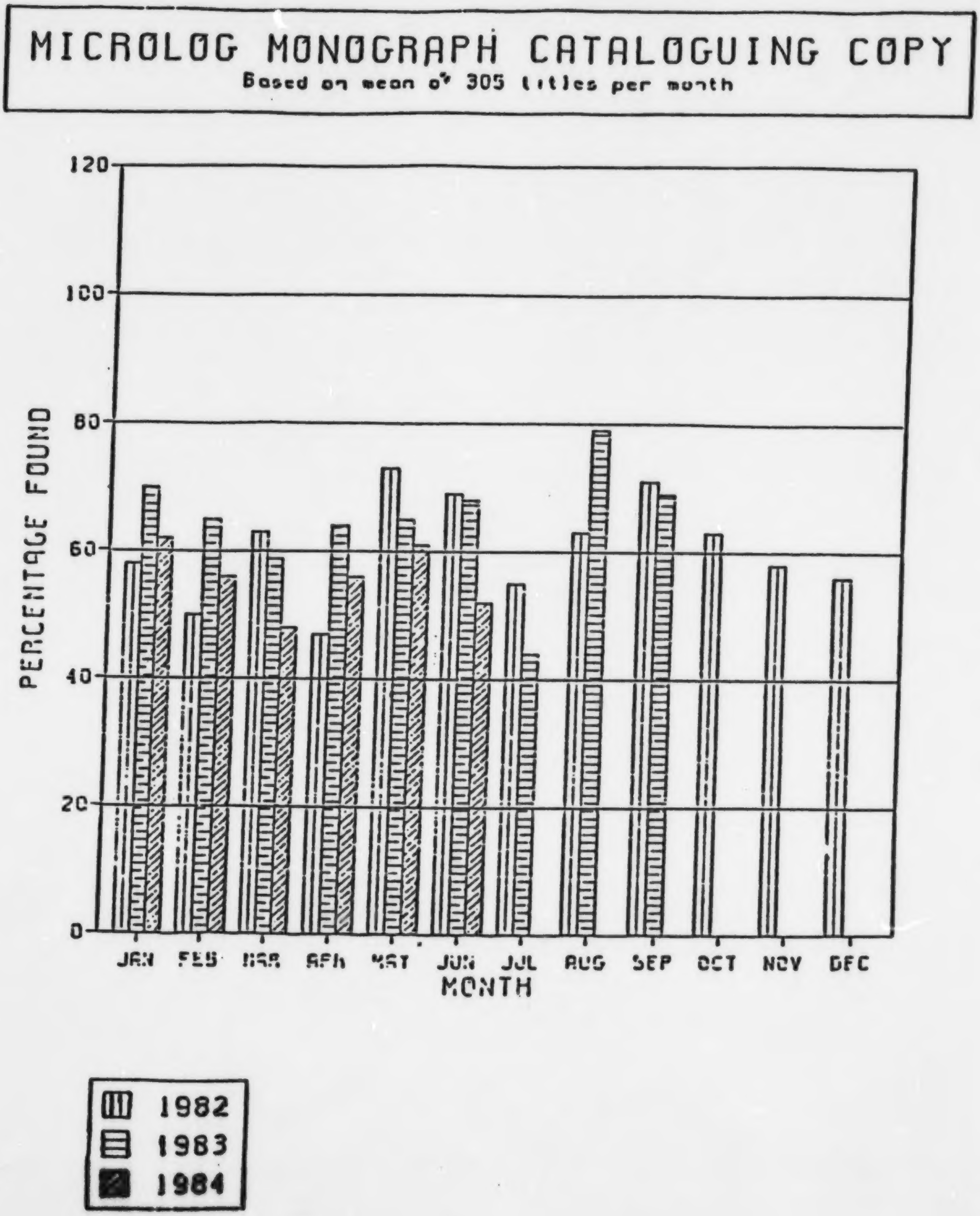
Walbridge, Sharon.(1982). OCLC and government documents collections. Government Publications Review. V.9: 277-287.

APPENDIX I



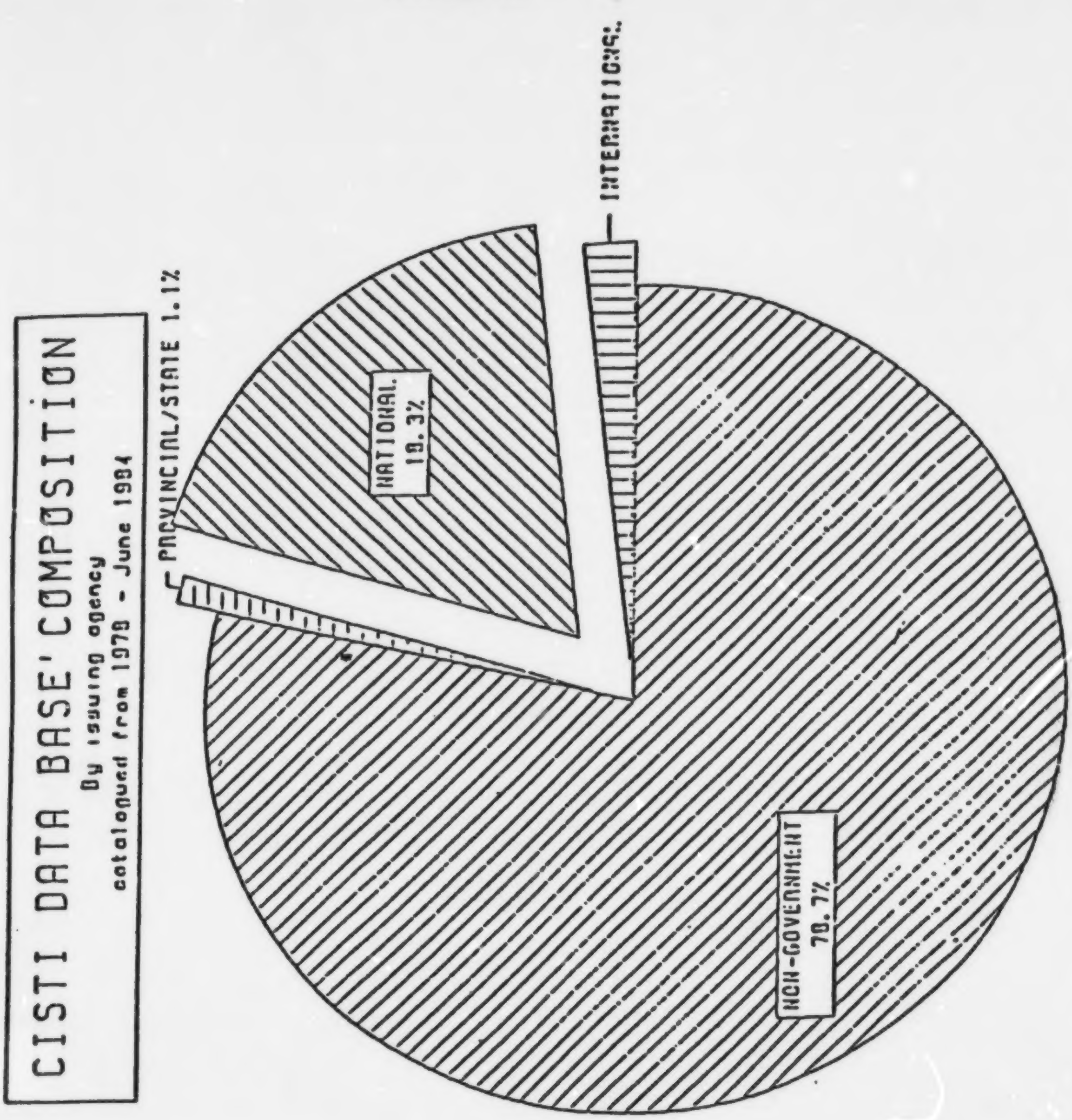
(best copy available)

APPENDIX II



(best copy available)

APPENDIX III



CISTI DATA BASE COMPOSITION
By issuing agency
catalogued from 1979 - June 1984

(best copy available)

FRONTIER LIBRARIES:

A PROFILE OF THE NORTHWEST TERRITORIES GOVERNMENT LIBRARY AND ITS FELLOW LIBRARIES IN CANADA'S LARGEST TERRITORY

Margaret Orr
Government Librarian, Government Library
Government of the Northwest Territories

INTRODUCTION

The Northwest Territories covers an area of over three million square kilometres and comprises one-third of Canada's total land mass. The 60th parallel comprises its southern border and its northern tip extends to the 82nd line of latitude above the magnetic North Pole. Yukon borders the Northwest Territories (N.W.T.) on the West and to the East the N.W.T. is separated from Greenland by Baffin Bay and the Davis Strait. Yet the population of the N.W.T. is just 49,000; 10,000 living in the capital city, Yellowknife. The rest of the population lives in sixty-two communities scattered across the Territories. The isolation of these settlements and towns and the harsh weather conditions experienced by them are balanced by the beauty and the serenity of their environs. Fifty-eight percent of the people of the N.W.T. are native, being Inuit, Dene or Metis. Disproportionate to the small population, is the importance of current events in the N.W.T. which have national, even international significance. These are the vast comprehensive native land claims, continuing hydrocarbon exploration and development and the proposed division of the Northwest Territories.

In this vast land and for its people, forty-seven libraries have been established and presently, library services in the Northwest Territories are developing well. Years of effort by N.W.T. librarians and their staff have resulted in gradual success and a fresh enthusiasm. One of the contributors to this enthusiasm is the N.W.T. Library Association. Founded in 1981 to further library development in the Territories, the Association is a focal point for cooperation and mutual assistance among Territorial librarians. There are presently 10 professional librarians working in the N.W.T. Several methods are used to train library staff. They, of course, are trained on the job. In addition, the Public Library Services occasionally stages workshops for its community staff. Finally, in Yellowknife, the Government of the N.W.T. has made library techniques courses available through Grant McEwan Community College in Edmonton.

In February 1984, the Association sponsored a conference in Yellowknife drawing a crowd of 46 librarians, library staff and interested individuals from across the N.W.T. Several celebrities from the South also attended to share their experience including, Lois Bewley, CLA President; Nita Cooke, Librarian at the Boreal Institute for Northern Studies; and Rama Kamra, Chief Librarian for the Indian and Northern Affairs Departmental Library. Communication was the conference theme and communicate we did! Four days filled with talks, displays and social events gave us all an opportunity to discuss our common concerns and to develop an interchange among librarians scattered in distant N.W.T. locations. One of the results of the conference is the new bulletin, Snowshoe, a quarterly filled with news, articles and features. Future workshops are being planned by the Asssociation to continue the momentum generated by the 1984 conference.

I would like today to briefly describe some of the libraries in the Northwest Territories and depict in more detail, the Government Library, of which I am the Librarian. This will serve to update the report given by my predecessor at the 1980 Colloquy and to indicate the library resources available in the Territories.

SCHOOL LIBRARIES

There are 14 school libraries in the Northwest Territories with full or part-time staff although each of the 72 schools in the Territories has a book collection. Most teacher librarians are members of the N.W.T. Teachers' Association Library Resource Council which meets annually at the Teachers' Conference. In Yellowknife, where more school libraries are concentrated, monthly meetings are held. The Council produces a newsletter three times a year featuring library news of interest to its members.

Thebacha College, the community college in Fort Smith, established a library in 1982. Brian Nimeroski is the College Librarian. He is developing the collection to be a strong reference and bibliographic resource as well as a resource supporting the College programs.

PUBLIC LIBRARIES

The Public Library Service is based in Hay River, a town and transportation centre south of Great Slave Lake. From this Headquarters, the Chief of Library Services administers twenty-one member libraries in communities scattered across the Territories. In addition, deposit collections are in place in several communities. Pat Smith, long-time member of the Northern Libraries Colloquy and Chief of Library Services for eighteen years retired in December 1983 and has been succeeded by Marion Pape recently of the Saskatoon Public Library. The new Chief is presently conducting a review of the service. Extensive proposals are being prepared regarding the adjustment of the service to respond to the special needs of the native population. Among these people, seven indigenous languages are spoken. Although writing systems have been developed for all of these, only Inuktitut is widely read by its speakers, the Inuit.Consequently, libraries in the N.W.T. are challenged to meet the information and recreation needs of the native population.

The Yellowknife Public Library is administered jointly by the N.W.T. Public Library Service and the City of Yellowknife. Librarian, Kitty Pope, oversees a collection of 15,500 volumes. A computerized circulation system has recently been approved by the City for this library in the form of an Apple II C computer and the Book Trak Library Management System.

SPECIAL LIBRARIES

There are twelve staffed special libraries currently operating in the Northwest Territories. The Dene-Metis Negotiations Secretariat Library is the sole non-government facility. This collection is on loan to the Secretariat from the Dene Nation, the political arm of the N.W.T. Indian peoples, and is being organized by Leith Peterson and trainee Alice Abel. The materials support the ongoing land claims negotiations covering such subjects as land use, renewable resources, claims negotiations, eligibility and internal policy. At present, this library is not open to public use. The library staff is fully occupied with the requirements of the Secretariat and Nation Staff.

Federal Special Libraries

The Federal Government operates two staffed libraries in Yellowknife. The Indian and Northern Affairs Technical Library has a substantial collection of geophysical and other technical reports supplemented by general reference materials. Librarian Don Albright also administers collections at the DIAND laboratories in Inuvik, Igloolik and Frobisher Bay. The National Defence Northern Region Headquarters Library services the needs of personnel and the public. There, the collection emphasizes military matters but northern history and native folklore are also included in selection. Numerous collections are maintained by office staff in other Federal departments in Yellowknife and other centres.

Territorial Special Libraries

The Government of the Northwest Territories maintains five staffed libraries. The Government Library was established in 1973 to serve as a central library for the Government of the Northwest Territories. As government departments grew, however, so did the need for departmental collections. Consequently, the focus of the Government Library's services changed. Today, it has assumed its present role as a general reference library for the Legislative Assembly, the Territorial Government and the public as well as being the government document depository. For a time, it was called the Government In-Service Library. However, the name was changed back to Government Library because the inclusion of the word "In-Service" discouraged public use of the library. The library has been administered by the Department of Justice and Public Services since September 1983. Presently, the staff is comprised of one librarian and one library technician. This is a small staff considering the size of the collection. There are approximately 13,000 monographs, 318 serials and 500 microform items housed in the 2,100 square foot library.

The Government Library actively assists the policy and program work of the Territorial Government and the activities of the Legislative Assembly through its collection and services. The collection of monograph and periodical materials emphasizes the subjects of public policy, public administration, political science and mangement. We select key documents reflecting the policy interests of the N.W.T. Government and receive government publications through full depository status with the Federal Government and the Government of the Northwest Territories. One of the most unique components of the library collection is the collection of approximately 1,200 Government of the N.W.T. reports. Departments of the Territorial Government deal with issues in the areas of education, social welfare, wildlife conservation, housing, and so on. Provincial and international documents are selected and acquired from checklists. The library is also a depository of the reports of associations, institutes and political organizatons in the North.

The collection is catalogued on cards using Universal Decimal Classification. A serials holdings list will soon be produced from a computerized file.

Services provided to the Assembly and departments by the Government Library include reference assistance, circulation of materials, online literature searches, interlibrary loans, weekly announcement of new acquisitions and a quarterly newsletter. The public is encouraged to use the collection and take advantage of reference help. Experience has shown that the heaviest demands come from government researchers, journalists, Yellowknife citizens and post-graduate students, some from as far away as Europe. Each year the library receives more and more requests for information from southern researchers and we are pleased to be able to contribute to the fund of knowledge of the North.

The effects of the recession have struck the Government Library hard in recent years. While treading the waters of restraint, we have concentrated upon streamlining the collection and services and improving library policy. I have found that an essential ingredient in Northern library work is unabashed enthusiasm in the face of the difficulty of obtaining increased funding for library development. We are distant from the examples of flourishing, well-attended academic and special libraries that are common in the South. We lack access to seminars and the frequent meetings of associations and library science alumni which do so much to advance knowledge in our field. This is why participating in the Northern Libraries Colloquy and maintaining contact with Colloquy members are so important to us. Our individual enthusiasm for library development, contact with librarians in the North and South and the work of our association not only spur us on but impress our public and our administration with the urgent need for further library development.

To consolidate our position in the hearts and minds of our patrons and management, we have found it necessary at the Government Library to concentrate on library promotion. To this end we commenced publishing a newsletter and distributed library brochures and bookmarks. In addition, monthly "Noontime Talks" featuring local talent and northern expertise have done much to encourage library support. These "Talks" have included a poetry reading, a slide-talk show on Yellowknife's past, a panel on cabin building and the reminiscences of the present Bishop of the Diocese of the Arctic. These activities will enable us to improve community awareness and support for the library so that the library can be further developed.

The computer age is just dawning for libraries in the N.W.T. Online communication requires the use of long distance phone calls since Datapac and satellite communication are not yet available for direct terminal access. Still, most N.W.T. librarians are expecting to implement computer applications within the next several years. Success in this will provide a tremendous leap forward for librarians needing to communicate over the vast distances of the N.W.T. At the Government Library, literature searches and interlibrary loans are done online more and more frequently. DIALOG, QL, Info Globe, CAN/OLE, University of Alberta Computer Services, the Canadian Centre for Occupational Health and Safety and I.P. Sharp are all accessed by various libraries and departments within the Government of the N.W.T.

Several departments of the Government of the N.W.T. have their own libraries. The Court Library managed by Librarian, Monica Welch, serves the N.W.T. judiciary and bar. The collection of the library which includes approximately 50,000 monographs is housed mainly in Yellowknife but also in six satellite libraries to serve the bench and bar when they go on circuit to remote communities. Among its services, the Court Library provides access to Quick Law databases. If information is needed beyond that provided by the collection, the University of Alberta Law Library is used.

The Dr. Otto Schaefer Health Resource Centre provides audio-visual materials to Department of Health staff, health professionals and teachers throughout the Territories. Health education posters and pamphlets are also provided to the public from the centre. Margaret McClintock is currently the Resource Centre Librarian.

The N.W.T. Archives Library is located in the Prince of Wales Northern Heritage Centre. This library collects monographs, serials, and reports relating to the history of the Northwest Territories and publications supporting the work of Centre staff. Carolynn Kobelka will be starting her appointment as the new librarian for the Archives during August of this year.

The Department of Renewable Resources has a library which gathers wildlife materials. The library's clerk catalogues the collection using the Library and Information Consultants Limited facility (LINC) in Edmonton. Collections are also kept by staff at the Audit Bureau, the Department of Public Works, the Energy Conservation office and the Safety Division.

CONCLUSION

Librarians in the Northwest Territories are still pioneers. Our work entails no small amount of drudgery and waiting, waiting, waiting for books and supplies. A particularly frustrating time in Yellowknife occurs during the Spring break-up of the Mackenzie River ice bridge when third class mail and supplies await special helicopter lifts across the water. However, librarians in the N.W.T. are presented with such engaging challenges as serving regular patrons a thousand miles away and incorporating the new official language policy into library services. Increasingly, we must make our libraries relevant to the majority of our patrons who are native people with seven indigenous languages and oral cultures. As librarians everywhere experience, there is no end to the challenges we face, and I know that we have the enthusiasm and dedication to meet them.

APPENDIX

Libraries in the Northwest Territories: A List

Public Libraries

N.W.T. PUBLIC LIBRARIES
P.O. Box 1100
Hay River, N.W.T.
X0E 0R0
(403)874-6531
For more information contact:
Marion Pape
Chief, Library Services

School Libraries

DEPT. OF EDUCATION
Government of the Northwest Territories
P.O. Box 1320
X1A 2L9
(403)873-7159
For more information contact:
Carol Lane
Program Specialist Languages

Special Libraries

Private

DENE-METIS NEGOTIATIONS SECRETARIAT LIBRARY
Northway Building
P.O. Box 1417
Yellowknife, N.W.T.
X1A 2P1
(403)920-2725
Hours: Due to heavy demand serves only Secretariat and Dene Nation personnel at present.
Library Technician: Leith Peterson

Federal Government

INDIAN AND NORTHERN AFFAIRS CANADA
TECHNICAL LIBRARY
Bellanca Building 2nd Floor
P.O. Box 1500
Yellowknife, N.W.T.
X1A 2R3
(403)920-8252/8144
Hours: 8:30-5:00, Monday-Friday
Librarian: Don Albright

Special Libraries Cont'd

Federal Government Cont'd

NATIONAL DEFENCE CANADA
NORTHERN REGION HEADQUARTERS LIBRARY
Evans Block
Postal Service 6666
Yellowknife, N.W.T.
X1A 2R3
(403)873-4011 ext. 540
Hours: 8:30-12:00; 1:00-4:00, Monday-Friday
Library Clerk: Betty Bryant

Territorial Government

AUDIT BUREAU LIBRARY
Precambrian Bldg., 3rd Floor
Government of the Northwest Territories
P.O. Box 1320
Yellowknife, N.W.T.
X1A 2L9
(403)873-7595
Hours: 8:30-12:00; 1:00-5:00, Monday-Friday

COURT LIBRARY
Courthouse Building, 2nd Floor
Government of the Northwest Territories
P.O. Box 1320
Yellowknife, N.W.T.
X1A 2L9
(403)873-7618, 920-8626
Hours: 8:30-5:00; Monday-Friday
Librarian: Monica Welch

ENERGY CONSERVATION LIBRARY, DEPT. OF PUBLIC WORKS
Post Office Building, 2nd Floor
Government of the Northwest Territories
P.O. Box 1320
Yellowknife, N.W.T.
X1A 2L9
(403)873-7203
Hours: 8:30-12:00; 1:00-5:00, Monday-Friday

GOVERNMENT LIBRARY
GOVERNMENT OF THE NORTHWEST TERRITORIES
Laing Building, 1st Floor
P.O. Box 1320
Yellowknife, N.W.T.
X1A 2L9
(403)873-7628/7694
Hours: 8:30-5:00, Monday-Friday
Librarian: Margaret Orr

Special Libraries Cont'd

Territorial Government Cont'd

N.W.T. ARCHIVES LIBRARY
Prince of Wales Northern Heritage Centre
P.O. Box 1320
Yellowknife, N.W.T.
X1A 2L9
(403)873-7177
Hours: 9:00-12:00; 1:00-4:30, Monday-Friday
Librarian: Carolynn Kobelka

OCCUPATIONAL HEALTH AND SAFETY RESOURCE CENTRE
Northway Building, 1st Floor
Government of the Northwest Territories
P.O. Box 1320
Yellowknife, N.W.T.
X1A 2L9
(403)873-7470
Hours: 1:00-5:00, Monday-Friday
Contact: Cindy Burns

OTTO (DR.) SCHAEFER HEALTH RESOURCE CENTRE
Precambrian Building, 5th Floor
Government of the Northwest Territories
P.O. Box 1320
Yellowknife, N.W.T.
X1A 2L9
(403)873-7713
Hours: 8:30-12:00; 1:00-5:00, Wednesday & Friday
Librarian: Margaret McClintock

RENEWABLE RESOURCES LIBRARY
Courthouse Building, 6th Floor
Government of the Northwest Territories
P.O. Box 1320
Yellowknife, N.W.T.
X1A 2L9
(403)920-8606
Hours: 8:30-12:00; 1:00-5:00, Monday-Friday

Library Associations

NORTHWEST TERRITORIES LIBRARY ASSOCIATION
P.O. Box 694
Yellowknife, N.W.T.
X1A 2N5
President: Don Albright 1984

Library Associations Cont'd

NORTHWEST TERRITORIES TEACHERS' ASSOCIATION LIBRARY RESOURCE COUNCIL
P.O. Box 746
Yellowknife, N.W.T.
X1A 2N5
President: Eileen Fizer

BIBLIOGRAPHY: FURTHER SOURCES OF INFORMATION

About the Government Library (Spring 1984). Government Library News. V.1: 1.

Allison, Jo Anne (1982). The N.W.T. Government In-Service Library. Proc. 8th Northern Libraries Colloquy (1980). Edmonton: Boreal Institute for Northern Studies; Whitehorse: Government of Yukon (hereinafter referred to as: Proc.): 199.

Clark, Janet (1979). School-housed community libraries in the Northwest Territories. In: Amey, L.J. The Canadian school-housed public library. Dalhousie University Occasional Paper 24, pp. 303-306.

Craggs, Anne (Dec. 1966). Come fly with me: north of the arctic circle with books. Ontario Library Review. V. 61: 200-202.

Fish, Jeannette (1982). The Yellowknife Public Library. Proc.: 197-198.

Goldberg, Deborah (1982). The Yellowknife Court Library. Proc.: 100-103.

N.W.T.L.A. in the News (Spring 1984). Snowshoe. V.1:3.

Smith, Patricia (1982). N.W.T. Library services update. Proc.: 194-196.

Smith, Patricia (July 1975). Beyond the city: library service to children in the Northwest Territories, Canada. International Library Review. V. 7: 301-312.

Smith, Patricia (July 1967). Public library services, Northwest Territories. Canadian Library. V. 24, N. 1: 19-21.

Smith, Patricia and Garth Graham (1977). Library service north of the sixtieth parallel: the Yukon and Northwest Territories. In: Loraine Spencer Garry and Carl Garry (eds.). Canadian libraries in their changing environment. Toronto: York University. Centre for Continuing Education, 1977.

SPEECH FOR NORTHERN LIBRARIES COLLOQUY-----Gordon H. Hills

The Village Library Project, Yukon-Kuskokwim Delta, Alaska

There's a series of five-minute programs on Alaska television called "People of the Land", sponsored by Alaskans for Sensible Fish and Game Management. It reminds all those who have lived for a time in Alaska of something they take for granted: In the North the landscape, climate and lives of other creatures than ourselves become internalized and a part of our inner spirit. Only in the heart of major urbanized areas like Anchorage, Fairbanks and Juneau can one ignore this dimension, and only if one avoids visiting the Alaskan bush altogether. There are some Alaskans like that, who emulate east coast urbanity, and who look for any opportunity to travel to the "Lower 48", to go "Outside", to return to "civilization". But for those who go to present-day oil-rich Alaska to earn good money, and then are open enough to learn from the land and the Native people who have been there many thousands of years, it is unforgettable. It is really a retreat to an earlier heritage---a retreat in the spiritual sense---to a heritage from which many of us in the so-called developed countries have become removed. Marshall McLuhan, Canadian analyst of the socio-cultural effects of the technological media of our age, was one who helped us to understand that. The further we become separated from the original stimuli of our existence, the more dangerous, vulnerable and insecure we become as earth inhabitants. So we who have worked and lived in the north are fortunate: We are brought close to the earth, we can hear those voices, from within and from the past. For this I must thank, among other Native people I have known, the Yupik Eskimo of the Yukon-Kuskokwim delta in western Alaska.

In the spirit of the North and the people I met there, I'm going to share my work with you in a personal way. I'm going to visit with you. Did I say MY work? I misspoke, of course. I meant OUR work, the things we are doing together. First let me say how nice it is to be here, to meet many of you, to hear news of what's going on in your villages, to hear of your families and the good fishing and hunting most of you are having this year. St. Johns and the people here are really nice, and it's interesting to visit this place. But I'm really anxious to get back home to my own village, and sometime you should come visit us, too.

In the Yukon-Kuskokwim delta we have been setting up village public libraries.

It started in 1980 and sort of ended in 1984, at least for me, when funding for my job ended. But the 15 libraries that are operating, plus one that is still trying to open, they're still going, and steps are being taken to make available technical assistance where needed. For additional financial support these libraries can apply to the Alaska State Library for Library Assistance Grants, and that's done independently. One thing we did that may help, and that's to produce a Village Library Handbook. It's supposed to be distributed to everyone soon. Then we have a variety of ideas for continuing to train the village library aides, something I used to do as Village Library Project Coordinator. The fifty-odd remote villages scattered along the Yukon and Kuskokwim rivers and the Bering Sea coast of the delta can only be reached by air, so any visits to train, or otherwise help a village library are expensive! The project was really well-conceived, using the newly acquired economic wealth of Alaska, and it may be difficult to duplicate again. Funding for the project paid for core collections, furnishings, resident library aide training, plus several months' pay for the aide for a ten-hour work week during the first year of a library's operation. In addition, it paid the full-time salary of a Coordinator, and travel for him to make 20-25 village visits during each nine-month working year, travel and accomodations for new aides to come to Bethel, the regional center, for training, and travel and accomodations for all the aides and some guest instructors to attend an annual meeting in a remote village. I should mention that, as the project has progressed, most of the individual library aide training has been moved to the home village, for the same reasons that the Annual Meeting of delta library workers has been held in a remote village, to take advantage of strong cultural awareness and community pride.

After the first year the villages are able to apply for the state grants, and are encouraged to add local funding and receive matching money for that. Though all villages in the delta were invited to participate in the Village Library Project, ones were selected by the Coordinator which seemed best prepared to receive a library, and this meant those meeting the requirements of a participating village: A heated, lighted place to house the library, and sufficient community support and interest to ensure that it would grow and prosper.

Now all that sounds neat and clean, but of course you probably suspect that it was not so, and are also wondering why that 16th village is having difficulty establishing its library! Let me say first that there are several reasons why the 16th village is having problems getting its library started, though they do have a library ordinance. The eventual housing for the library turned out to be quite unattractive and impractical, the state Library

Assistance Grant was not applied for two years in succession, the coordinator did not visit the village the start of the second year, the trained aide quit, and village officials and staff changed completely after an election. This set of circumstances pretty much sums up the kinds of problems endemic to starting up a library in a remote eskimo village.

I remember giving an orientation to the Kuskokwim Consortium Library in Bethel, the regional center and my home base. These new students were from villages all over the delta, including 3 or 4 having the new public libraries the project developed. We were having a long spell of severe cold at the time , with chill factors staying at 70-80 below zero for several weeks. The plumbing was frozen, so we were using honey buckets and carrying our water, and the furnace was malfunctioning and being worked on at that very moment, with emergency heaters of various types scattered throughout the building. The carpet was laced with multi-colored electrical extension cords keeping them all going. One purpose of the orientation was to make the villagers feel at home in the big Bethel library, serving a population of about 4000, and so I pointed out all the problems we were having, just like in every other, much smaller village in the delta, and that Bethel, though a regional center, with all the advantages which that implies, had to contend with the same difficult conditions as everyone else.

One learned to respect and listen closely to the village officials and elders, to live and work with the villagers on their own terms. It was not enough to talk to a few village representatives, and to work only with the library aide in the library. This was a gradual awareness on my part, and I belatedly began making much closer acquaintance with each village, during my 2-3 day visits. At the same time, of course, the villagers were getting to know me. They looked for me and depended on me to come around each year, once the library was set up, like a migrating waterfowl. We would visit of course, talking about things and learning more about each other. I reminded myself that many of these villages are hundreds of years old, and certainly the people inhabiting them have been together for that long and much longer. Out on the vast tundra, barren coast and great rivers, these villages have been self-sufficient islands of humanity and culture, with insular integrity and prideful heritage, independent and vigorous. My perceptions sharpened, I was prompted to consider innovative concepts of community librarianship, and I became more and more able to look at the struggling village library through the eyes of the villagers.

They wanted the library to be their own, to belong to the village and to no one else. They dealt with any library difficulties on their own, or ignored them, or let the library close if they weren't manageable. And such adverse news wasn't ordinarily passed along to the project Coordinator. Therefore, close monitoring was necessary, and one felt new antennae growing out of one's head each time a village was dialed up, each time one stepped off the mail plane. For the village library ultimately had to become a part of village life on its own, if it were to survive at all. Because, despite the gradual introduction of the most modern communication and transportation technology into these villages, joining them with every other village and the rest of the world, the tradition of self-sufficiency and independence is still very strong.

Take the collection, for example. It started out as a core mini-collection that might be installed in any village of 300-500: A cross section from the Dewey Classification, plus a healthy representation of reference books, children's books, and adult fiction. Then, as a bow to the Yupik culture one found some materials printed in the new Yupik orthography and a course in the Yupik language with a set of audiocassettes. There were cooperative extension materials for the homemaker and subsistence provider. The entire Dewey classification and fiction shelves were printed in English, and very few villagers could read the new Yupik orthography. I should mention that the Yukon-Kuskokwim delta has a population of about 19,500, about 80% of which is Yupik-speaking. More and more young people, of course, are speaking English as well as Yupik, and there is a growing fraction of them that speak ONLY English... Lastly, a tape recorder/player and several children's read-a-long cassette/books were provided, and subscriptions to about 20 periodicals. Now, you may ask, who selected all these things? Well, it was the project Coordinator, at least the first year. (As a footnote I must say that I was not the original beginning project Coordinator, who left early the first year after the pressure of trying to start up nine libraries all at once finally caught up with him. He apparently was also unhappy spending so much time travelling in the winter and being away from his young family.) I feel now that there should be an advisory committee from among the villagers to help select any collection of materials installed in village public libraries of the future. For as time went on I realized that we had left several areas untouched, not only as to subject, but regarding medium and format. Religious materials through the local church, a wide selection of repair manuals, catalogs, business and trade skill texts and handbooks were added. Materials on Alaska and especially on the Yukon-Kuskokwim delta and other northern peoples were provided. Audiocassettes of music were added. A few villages wanted to do oral history and other kinds of local history recording and add them to the library's collection. Others with video production equipment wanted to add their videotapes of local cultural actitivites. Maps of all types useful for villagers were acquired. Then all the libraries were advised to acquire a microfiche reader and sets of the Alaska State Film and Video Library Catalog and Alaska Library Network (or ALN) Catalog on microfiches, which will greatly expand the bibliographic as well as Interlibrary Loan capability of these tiny, remote village libraries. The ALN catalog includes the holdings of all major Alaska libraries. Both sets of fiches are available free to any Alaska library with a microfiche reader.

The Village Library project was a cross-cultural community development effort and, though well funded as long as it lasted---and this is not to say that it will not resume its work again, at some point in the future---it was really a complex enterprise, and those of us who worked on it came away having learned far more than we taught. I also believe that the college withdrew from the enterprise too soon, and that not enough information was obtained before the decision was made to phase out the project.

The Yukon-Kuskokwim delta is the largest and strongest concentration of Native communities and culture in Alaska. The Central Yupik language is very much alive, and one recommendation I made was that Kuskokwim Community College field workers, of which I was one, be given incentives to learn something of the language. Having a cross-cultural orientation is not enough.

These libraries will have to harness in tandem the appropriate information of both cultures---the western and the Yupik Eskimo, and this implies respecting, preserving and perpetuating the Native language. Therefore the non-Native workers from the college should be brought into the language, so that the goal ought to be a bilingual capability. Obviously, the easiest and most logical way to accomplish this is to train the Native library workers to take over the development and administation of their own community library services, and I believe this will happen in time.

Another, very similiar project has brought newly constructed and well-equipped learning resource centers to six villages on the Seward Peninsula and St. Lawrence Island, 200 miles northward from the delta. The difference here is that these new facilities were built through a joint effort of the Northwest Community College, the regional Native corporation's non-profit arm, the Kawerak Corporation, and the Kegoayah Kozga Library of Nome . In contrast, the delta libraries were installed in a variety of village buildings, and funding came primarily through the Kuskokwim Community College, with grant assistance from the Alaska Commission on Postsecondary Education and the Alaska State Library---all Alaska state agencies. In February the library workers from both these regions held a joint Annual Meeting at St. Marys on the Yukon, and we discovered that we had encountered and solved the same array of problems the same way---to work more and more closely with the villagers, and to transform these libraries into appropriate and unique literacy and learning centers, to borrow a phrase from an evaluative study done on the project this past winter. By the way, we are making available a sheet of annotated references, which include a variety of documentation on the work of the project.

I am not a certified teacher, but that is my sense of what is needed, to accomplish the goal of literacy and education, preserving the culture and at the same time helping villagers to prepare to manage cross-cultural community development projects such as the one establishing village public libraries. But I suppose my thinking is rather idealistic, because in the delta there have been yearly program and organizational shifts and staff turnover that preclude all but the most nominal continuity and effectiveness in such work, in my judgement. For it is all quite new, modern development in the north, and I guess we in Alaska are the first ones among the circumpolar nations to invest a lot of money, energy and organization in it. For myself it has been a profound learning experience, and I would like to return to the north someday, to put to work some of the things I have been taught by the people and environment and forces for change in the north.

The future must bring improvement in every way, and perhaps in terms of library development among remote, predominantly Native populations the lessons learned through the Village Library Project in the Yukon-Kuskokwim delta will be applicable elsewhere in the north.

I will end my visit with you by adding the personal news that I am going south for a while in order to be close to my teenage son, who is attending school in Seattle while living with his mother. He will not be a youth much longer, and I want to walk with him into manhood. He already has a warm beaver hat and fancy muk-luks, but for his birthday this time I'm bringing him something from the spirit world, a pair of men's dance fans or finger masks. I'm even taking some dogs south, and we'll use them for chores and perhaps do a little racing. We learn things from our four-footed friends, too, I know that. So we will keep in touch with northern affairs and make annual visits, and look to return someday. That is what the north and the wonderful people who live there do to you!

Hills, Gordon H. The Village Library Project, Yukon-Kuskokwim Delta, Alaska. Rural Libraries; 1983; III(II): P.89-105.
Summarizes first three years of a state funded and community college-administered library development project among remote Yupik Eskimo villages in Yukon-Kuskokwim delta. Cross cultural aspects are emphasized, along with the role of these very small community public libraries in the education delivery system of the individual villages, which includes adult basic education programs and college level courses taught in the village through the college, and the local schools. Author was formerly Coordinator of project.

Hills, Gordon H., former Coordinator of Village Libraries, Kuskokwim Community College, Bethel, AK. The Village Library Project, Yukon-Kuskokwim Delta, Alaska: Afterward; June, 1984; 7pp.; typescript of unpublished article. Available from author: Gen. Del., Tokeland, WA 98590.
Final Recommendations, statistics, additions and corrections on the Village Library Project, as discussed in 1983 article in Rural Libraries and in a formal evaluative study done by consultants.

Tennant, Edward; Kolb, Audrey, consultants. The Yukon-Kuskokwim Village Library Project, An Evaluative Study; January 8, 1984; 93pp.
Note: "Prepared for Kuskokwim Community College and the Alaska State Library." The author is the Executive Director of Educational Research Associates, Inc. of Bellevue, WA. The co-author is the Northern Region Coordinator of Alaska State Library, Fairbanks, AK.
This evaluation include information on evaluation procedures, library installations (including several site visits), the village library support system, relations between the community college and the village libraries, ending with a summary and recommendations for the future.

Hills, Gordon H., Coordindator (Village Libraries, Kuskokwim Community College). Village Libraries, Kuskokwim Community College, General Recommendations and Statistics; March, 1984; 8pp. Available from the Kuskokwim Consortium Library in Bethel, AK 99559, or the author: Gen. Del., Tokeland, WA 98590.
Note: Includes 4 pages of original recommendations, 2 pages of supplemental recommendations and a letter with one more.

Hills, Gordon H., Coordinator, Village Libraries, Kuskokwim Community College. Village Library Handbook; (1984); 43pp of text; 63pp of appendices; unbound draft. Available from Kuskokwim Consortium Library, Bethel, AK 99559, or from the author: Gen. Del., Tokeland, WA 98590.
Note: This is a final or nearly final draft of a handbook that will be distributed to officials and library aides in villages of the Yukon-Kuskokwim delta having public libraries.
This handbook attempts to cover all aspects of operating a very small public library in a remote Yupik Eskimo village.

USING A WORD PROCESSOR IN THE GOLDTHWAIT POLAR LIBRARY

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INTRODUCTION

The Goldthwait Polar Library is a small research library located within the Institute of Polar Studies at The Ohio State University in Columbus, Ohio. Although the library staff (1 librarian and 1 student library assistant) have access to the OSU libraries' resources, the library is not part of the official Ohio State University Library System. The library does not rely on the Library System for acquisitions, cataloging and processing of material and the library's holdings are not on their on-line catalog, LCS (Library Control System). As a separate entity the library must therefore do everything in-house.

Since its establishment in 1960, the library has undergone a variety of changes in regard to day-to-day operations and procedures. In 1983 the Institute of Polar Studies purchased Digital DECmate 1 word processors and printers, with one to be shared by the library and other members of the Institute. Use of the word processor drastically changed procedures and operations in the Goldthwait Polar Library and changed them for the better. Production and processing of catalog cards, the quarterly accessions lists and the reprint requests have all been simplified by the use of the word processor.

MATERIALS AND METHODS

Catalog Cards

Previously, catalog cards had been produced in several ways, including the typing of each card separately, typing four original cards from a hand-written workform and then xeroxing multiple copies. Cards produced at the beginning of the library's history were typed one at a time and included only miminal information. Some cards list only the author and title, others include the publisher and the date of publication, but it is difficult to tell by looking at the cards where an item is shelved. As the library progressed, the cataloging became more sophisticated and more standardized, hence the cards took longer to type. Typing each card individually was no longer practical and a new system had to be devised. Workforms for cataloging were produced and from the information on the workforms four original cards were typed on a sheet of white paper and then copied onto card stock. This posed other problems. The cards often jammed in the copier, they often smeared, and if the card stock was not fed into the copier exactly right the printing was crooked and the set of cards had to be redone. Subject headings and added entries were typed on later. The original sheet of four cards was kept to use for the quarterly accessions list.

Now the original cards are typed on the word processor from the workform in alphabetical order and according to how many cards are needed. For example, the "cards, six" document contains all the cards which need to have six copies. When the cards are ready to be printed, the print menu is changed from "cp 1" to "cp 6" and the word processor automatically runs off six copies of each card. Pin-fed catalog card stock is used. An important feature of the DECmate 1 is that it allows for editing of other documents while one document is being printed, or other documents can be set up to be printed one after another. Subject headings and added entries are still typed on later. In the word processor, the tracings on the cards are then deleted quickly by using the "cut" feature. Only the bibliographic information is kept, and then transferred to a file called "cards, done." Storing the bibliographic information in another document allows more cards to be typed and then printed. The "cards, done" file need not be retrieved until it is time to produce the accessions list.

Accessions List

The bibliographic information in the "cards, done" file makes up the accessions list. The accessions list is divided by subjects, each subject having its own file in the word processor. The information from the "cards, done" file is then moved to the appropriate subject file. The subject files are electronically cut and pasted alphabetically into a newly created accessions list. The list is proofread, printed in hard copy, and is ready to go to the printers. In the past, the accessions lists were cut and pasted by hand from the four originals which were reduced by xeroxing. This was a time-consuming, tedious task.

In the past, mailing address labels for the accessions lists were keypunched and then sent to an OSU computer facility to be run off. Now the mailing list is permanently stored on disk. The list can easily be updated and labels can be printed at the library's convenience whenever necessary. The completed accessions lists are stored on a separate disk, eliminating the need to keep a hard copy when the supply of printed ones is depleted. If more copies are needed, the lists can be retrieved and printed.

Reprint Requests

Although the library receives many reports, journals and reprints on an exchange basis it is necessary to also periodically solicit reprints from individuals to keep the library current. Requesting reprints from authors has never been so easy. Members of the Institute are asked which new authors should be added to the collection as well as which authors' folders are lacking current reprints.

Two different form letters are reproduced as many times as needed and permanently stored on disk. Only the name and address section needs to be changed. The letters are printed on OSU letterhead on the letter quality printer, either singularly or in groups depending on the demand for reprints. For example, someone suggested we start a folder of reprints by Dr. William Barr. He was not previously represented in the collection because of the scientific and technical orientation of the collection. As a result of the form letter we sent him, Dr. Barr graciously sent us 32 reprints which we needed. If an author already has a reprint folder we xerox the list of reprints in the front of the folder and enclose that with the form letter. This way we only receive reprints which we don't already own.

A separate list of authors is kept so that we know who received reprint request letters and when, what date we received the material and the date we sent out a thank you letter. Thank you notes are sometimes done on the word processor as well. Using the list processing option, we also keep an alphabetical listing of authors and their addresses for future reference.

Before the word processor was used, reprints were only requested sporadically and there was no standard system for processing the reprint requests. It was too time consuming to type the letters one at a time so they were xeroxed or mimeographed. Consequently, the letters did not always look as neat as they should. The form letters done on the word processor are much more personal and also save a great deal of time.

CONCLUSIONS

Many other library procedures could become simplified and more efficient by using the word processor. Since the library has to share the DECmate 1 and there is only one letter quality printer for the entire Institute, it is impractical to add more tasks at this time. However, if the library had its own word processor, operations such as acquisitions, budget management and keeping library statistics could be done more easily. All library correspondence could be done on the wp, instead of on the typewriter as is the case now. The DECmate 1 also has communication capabilities, so in the future the library will be able to communicate directly with other libraries and institutions. In that case, reprint requests, interlibrary loan and reference assistance could all be handled via the word processor.

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A DESCRIPTION OF THE LIBRARY COLLECTION AT THE GEOPHYSICAL INSTITUTE - UNIVERSITY OF ALASKA - FAIRBANKS

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Auroras, earthquakes, permafrost, volcanoes, glaciers, sea ice, arctic haze, aeronomy, space physics and ice fog are all major subject collections in the Geophysical Institute Library. The Institute is the only academic center for geophysics at high latitudes in the United States and the library serves as information center for this geophysical research.

The purpose of this paper is to describe the Institute's Library Collection. As background for this discussion, I will give a brief history of the Institute and describe its current research facilities. This will be followed by a historical review of the library's collection development. Finally, the current collection and its evaluation will be summarized.

INSTITUTE

History

Auroral research at the University of Alaska predates the establishment of the Geophysical Institute by 20 years. It started with a Rockefeller Foundation grant in 1929 to make visual observations of the aurora. During the International Polar Year, 1932-33, the university was selected as a main station to obtain data on the aurora, terrestrial magnetism, seismology, and the ionosphere. This program continued through 1941. During the war, the university's research program was expanded to include the deviation of radio waves from the great circle course, the magnetic field's rapid fluctuations and auroral light intensities; apparently these were of military interest.

In 1949, a Congressional Act established the Geophysical Institute and as part of the organization stated that the Institute would have a director, librarian and secretary. Hence the library has been an integral part of the research program from the beginning.

Present Research Facilities

Today the Geophysical Institute is mainly located in the Elvey Building on the University of Alaska, Fairbanks Campus. Within this building are staff offices, laboratories and supporting services, one of which is the library. The Institute also has a number of field sites near Fairbanks. The main ones are Poker Flat Rocket Range, Ester Dome Observatory, Sheep Creek Transmitter Station and Chena Valley Radio Facility. Most Institute projects are centered in Alaska, but many of these require observation points at locations outside Alaska. As a result, the Institute cooperates on many international projects in the Arctic and Antarctic.

The principal fields of research are solar-terrestrial science, aeronomy, meteorology, climatology, glaciology and solid earth geophysics. Three key factors determine this research emphasis of the

Institute: 1) the high geomagnetic latitude which makes it a favorable location for study of the auroral zone, 2) the high geographic latitude which provides opportunities to study arctic and sub-arctic climatology, meteorology, glaciology and hydrology, and 3) the high rate of tectonic activity which makes this an excellent site for gravity, seismology, volcanology and paleomagnetism.

LIBRARY

The library is the information center for all geophysical research at the main building as well as the remote sites. As stated before, the library has had an important role in the research program from the beginning. All the past directors have been deeply committed to the development of the library, and much of its strength is a product of their involvement.

Collection Development

The early foundation collection specialized in the areas of aurora, upper atmosphere, magnetosphere, ionosphere and radio propagation. In the 60's the collection expanded to include solid earth geophysics, meteorology, climatology and glaciology. At the same time the collection philosophy was broadened to include works in the history of science, scientific biography, archeology and even some biology. The reason for the broadened scope was that scientists tend to read only in their specialized fields and should be encouraged to read a broader spectrum of scientific material.

The library is located on the 5th floor of the Geophysical Institute and is open 8 - 5 weekdays. Visitors are welcome and interlibrary loans can be made internationally. The library has 11,000 cataloged books and 750 serial titles with 273 periodicals currently received. There are 182 linear feet of reports arranged by issuing agency and 405 linear feet of data arranged by type of data and country of origin.

Collection Evaluation

At the time I became librarian for the Institute in 1981, I wondered if the library was as self-sufficient as its reports indicated. How could I identify the strengths and weaknesses of the collection? Had the library kept pace with the changing and expanding directions of Institute research? Was the staff really aware of new materials in their fields and was it available here?

My personal observations of the library really did not give me the answers to these questions. The faculty and staff seemed happy and content with the library. Few interlibrary loans except for reports and symposium proceedings were requested, so the collection appeared to be generally adequate. There were many enthusiastic comments by visitors when they discovered rare and unusual books. Among the other significant assets were long runs of some serial sets, many starting with volume 1 and a few going back to the 1800's.

My personal observations were too subjective, and I felt that the evaluation needed to be more systematic and structured in such a way that it could be used as the foundation for future collection development. By fortunate coincidence, Dennis Stephens, the Alaska Collection Development Plan Coordinator was at that time developing collection evaluation tools for his program. Here was the answer to my needs.

The main feature of the evaluation process is the numerical rating of each small subject section in the Library of Congress classification (1 = minimal collection; 5 = comprehensive). The evaluation could be by a team including both the librarian and appropriate research staff for the subject area. The details of this evaluation process were given by Dennis and his committee at a workshop. Their intent is that all libraries in the state would use the same ground rules; these will be described in the presentation at this conference by Cathy Innes-Taylor and Dennis Stephens.

I would like to describe the methodology of collection evaluation as it was applied at the Geophysical Institute. The evaluation team consisted of Dennis Stephens, Alaska Collection Development Coordinator, myself as librarian of the Geophysical Institute and a research faculty member in each area to be evaluated. This research person needed to be acquainted with material in his own discipline; both historically and at present. It is particularly important that the research person not be argumentative; otherwise the work sessions can turn into a defense of the classification of books in the Library of Congress (L. C.) categories. It should also be emphasized that the researcher's participation is essential to give the study credibility; this might not be the case if the librarians alone did the evaluation.

One person was designated as the record-keeper while the others looked over his/her shoulder. The record-keeper was provided with an L.C. classification schedule which showed the number of books each a particular subject section in the Geophysical Institute Library. This number was previously determined by measuring the length of the shelflist for each subject section. It also provided a valuable indicator of how many books were circulating from a given section and thus not available for examination at the time of the evaluation.

The record-keeper indicated the specific sections for consideration and what the spectrum of its contents should be according to the L.C. classification. The researcher usually lead the discussion with an evaluation of the merits of the books. The other team members contributed by comparing these merits with the collection evaluation criteria.

All research staff who participated made discoveries of materials which they did not know were in the library. As librarian, I benefitted in the book by book analyzation of the collection. Notes on the need for updating series, weeding and other items were recorded on the L.C. sheets for future reference.

These notes were then compiled and key areas of strengths and weaknesses became immediately obvious. Following is an example of a compilation for the subdivision of physics.

		No. of books, est.	Collection Level
Section in Physics	Statistical Physics	40	3b
	Solid State Physics	28	3b
	Electrodynamics	7	1
	Physical Optics	7	2
	Plasma Physics	125	4

Please note that the numerical form of the evaluation provides a measure of the relative degree of strength and weakness of each area; that is the evaluation is not merely qualitative, but quantitative.

Among the areas of strength are: aurora, aeronomy, atmospheric physics, meteorological optics, volcanology, seismology, plate tectonics, cloud physics and glaciology . The evaluation process has not been completed, so these are only preliminary conclusions and other areas of strength may appear later.

Current Collection

With this as background, the current collection will be reviewed by individual category: books, periodicals, reports, data and institute reports.

Books

The collection contains many classic scientific works with publication dates preceeding the opening of the institute and some from the early 1900's. Our aurora books are particularly noteworthy.

The arctic and antarctic expedition books were one of the delightful surprises of this study. Some examples are: "National Antarctic Expedition" (1901-1904), "Australasian Expedition" (1911-1914), "British Antarctic Expedition" (1910-1913), "Norwegian Aurora Polaris Expedition" (1902-1903), "Exploration Internationale des Regions Polares" (1882-1883).

Some time intervals are more heavily represented than others, reflecting special studies or events. The Institute's active role in the 1956-1957 IGY (International Geophysical Year) is certainly in evidence in the library. Newsletters, bulletins, annals and numerous publications from participating countries are found. Reports of the IQSY (International Year of the Quiet Sun) of 1964-1965 are also represented here.

Many areas were identified that needed updated material. The collection has good historical coverage and serial sets, but lacked really current 1980 material. Specific fields are being checked by looking in Books In Print to see if any new books have been published that should be in our collection.

Some subject support areas, such as mathematics, were found to be very outdated or weak. This problem has already been corrected to the extent that new material is now on order.

Periodicals

Periodicals are the most important part of this or any other scientific library; current technical information is vital to research. 273 periodicals are currently received on subscription and exchange with other geophysical institutions in the world. Numerous foreign journals help enrich the collection.

The periodical collection is particularly impressive for its long runs of journals, with many sets beginning before the Institute was established. The majority of journals start with volume 1. "Monthly Notices of the Royal Astronomical Society" (1827 - present) or "Monthly Weather Review" (1898 - present), are good examples of some of the very old sets.

To gain access to this periodical literature, the Institute subscribes to a number of printed indexes: "Physics Abstracts", "Bibliography on Cold Regions Science", "Astronomy and Astrophysical Abstracts", "NASA Star Index", "Bibliography on Seismology", "Geophysics Abstracts", "NASA Earth Resources" and "Applied Mechanics Reviews". In addition, computer literature searching in BRS, Dialog, NASA and QL is available for recent bibliographic requests.

Reports

Selected reports are received from agencies worldwide that are performing research in areas of interest. The majority of the U.S.

reports fall into one of three groups: university, government and institute. These are arranged alphabetically by the title of the issuing agency within each of these three groups. Examples of such agencies in the U.S. section are NRL (Naval Research Laboratory), CRREL (U.S. Army Corps of Engineers Cold Regions Research and Engineering Laboratory), NOAA (National Oceanic and Atmospheric Administration), NASA (National Aeronautical and Space Administration), and OCS (Outer Continental Shelf).

The foreign reports have been arranged alphabetically by country of origin. Examples of these are: "Geophysical Papers of the Danish Meteorological Institute", "Publications in Meterology from McGill Dept. of Meteorology" and "Technical Reports of the Meteorological Research Institute of Japan".

No log record is available on the majority of reports, so the shelf must be checked to see if the library has any given item. To avoid such time-consuming effort we plan to identify exactly what is in the report collection: this is a priority project for 1984-1985.

Data Collections

The data collections are extensive both in the library and the adjoining geodata center.

Library: The data in the library are arranged first by type of data and then by station (recording location). Some types of data that are received are: climatic, cosmic ray, ionospheric, magnetic, solar, satellite and seismic. No comprehensive inventory has been made of these data sets except for the climatic data. Work is just beginning on the ionospheric data.

1. Arctic Climatological Data: There is an extensive climatic

data collection from numerous stations in Alaska and Canada. There are additional climate data sets from Antarctica, Denmark, Greenland and Iceland. U.S. storm data and snow survey information is also available.

Other climatic data of interest include the "Synoptic Weather Maps - Northern Hemisphere Sea Level and 500 Millibar Charts with Synoptic Data Tabulations". These are daily maps of the Northern Hemisphere with weather data from 1899 - 1965.

Additional weather maps of a similar nature are the "Japan Daily Weather Maps" 197[illegible] - present and the "European Meteorological Bulletin" (maps) 1968 - present.

2. Ionospheric Data: This is the second largest data collection in the library and inventory has just started. It includes data from numerous arctic sites.

3. Other Data Sets: The rest of the data sets, seismic, solar and magnetic, will be inventoried this year. A list of these will be available upon request.

Other major collections that might be of interest are: "Greenwich Magnetic and Meteorological Observatory", 1859 - 1953, "Greenwich Photo Heliographic Results", 1881 - 1955, "Initial Reports of the Deep Sea Drilling Project", v. 1 - present.

Geodata Center (separate collection)

The Institute library has world wide auroral and magnetic reports continuous from the IGY years (1957 - present) and these are well indexed. The library also has the most complete public collection of satellite imagery and aerial photography of Alaska in the state. Hard copy files of Landsat imagery from 1972 - present are available for browsing, as are selected enlargements of many areas. Daily NOAA satellite images from 1974 to present are also on file.

Institute Publications

The Institute faculty publish the majority of their research in journal articles and contract reports. Long articles with extensive tables of data or maps are published in the Institute Report Series. A list of the Institute reprints and reports is available upon request.

Public-oriented publications available for a fee from the Institute include "Understanding the Aurora", "Alaska Geographics", "Aurora Borealis, the Amazing Northern Lights", "Alaska Science Nuggets" and the "Northern Engineer", a periodical focusing on engineering practice and technology in cold regions.

The Geophysical Institute also publishes a comprehensive "Annual Report" and a newsletter "The Geophysical Institute Quarterly".

CONCLUSIONS

My early questions about the library collection have been partly answered by the collection evaluation. The strengths and weaknesses of the major sections have been identified, as well as those areas needing updated materials. How self-sufficient is the library? - No library is totally self-sufficient, but this one is certainly close.

Although the collection evaluation process has been completed for books in the main areas of interest for the institute: (mathematics, physics, astronomy and geology), more work is needed to complete the project for the entire collection. The summary conclusions for the completed sections are still being analyzed and modified.

The collection evaluation has helped me to identify the unique aspects of the collection, as a by-product of the comprehensive inventory. It provides me with a good summary of the collection's strengths and weaknesses so that future purchases can build from this foundation. Areas needing updated material are clearly identified.

The State of Alaska will also benefit from the input of collection information from libraries, like mine, into the State Collection Development Plan. My library contains a significant part of the scientific literature in the state; inclusion in the State Plan will make it more readily available to others.

A concerted effort is needed to include all of our data sets and reports in the Alaska Union List of Serials, so that others may know of their existence. Also it is hoped that the library can become a part of WLN (Washington Library Network) so that others may know of the collection. However, the high cost of communication to WLN is a problem for a library of this size.

In conclusion, my purpose has been to give you information on geophysical research in the Arctic and the scope of the library collection at the Geophysical Institute, University of Alaska, Fairbanks. Next time you have a reference question in geophysics concerning the northern latitudes that you can't answer, remember that the Geophysical Institute Library will be happy to help you.

TECHNICAL SESSION III

Preservation, Organization and Indexing of Non-book Materials

MANAGEMENT OF INFORMATION FOR THE NORTHERN REGULATORY REVIEW

Presentation made by Monica Morrison
to the
10th Northern Libraries Colloquy
St. John's, Newfoundland

August 15, 1984

The problem of management of non-book materials develops a twist when one has to deal with a special bibliographic collection outside the usual library setting. One must decide whether to treat books in the same way as other written and printed sources of information relevant to the project at hand. Experience gained from developing an information management system for a fixed-term government project gives us some indication that the distinction between monograph and other types of material format is unnecessary when there is access to the support services of an established organization. This paper describes how we have been dealing with this problem in the development of the information management system for the Northern Regulatory Review project.

Land and natural resources in Canada North of 60 are, for the most part, owned and administered by the federal government. The principal federal agency with responsibility for the north is the Department of Indian Affairs and Northern Development. If a company wants to carry out a development project in the north - open a large quarry, let's say - it must first approach the department with its proposal. That's seems straight-forward, but it's at this point that the simplicity ends. A host of other government departments and review agencies step in at this point, wanting to assess the potential impacts of the project on the environment, economy and people of the region, and to determine the terms and conditions under which the project will proceed, if approved.

In the quarry example, after Indian and Northern Affairs Canada has reviewed the proposal the department may decide that an Initial Environmental Evaluation (IEE) must be prepared and the project be considered for an Environmental Assessment and Review Panel (EARP) review. Meanwhile the company is applying for a land use permit, land lease, quarrying permit and authorization to use water on the site. An environmental screening body set up by one of the native land claims agreements wants to look at the project, as does the Government of the Northwest Territories sponsored Development Impact Zone (DIZ) group for the region. If the quarry is on the coast of the Arctic Ocean and the gravel produced is to be shipped the Ministry of Transport must be involved in the review. The territorial water board may decide it is necessary to hold a public hearing about the proposed project's use of water on the site. Meanwhile the Northern Land Use Planning officials - jointly employed by federal and territorial governments - want to make sure their guidelines for land use in the region will be followed. Both federal and territorial governments will want to ensure that plans have been formalized for northern benefits policies, health and safety provisions, and compensation for renewable resource loss. Just some of the legislation and accompanying regulations the company must take into consideration is the Territorial Lands Act, Quarrying Regulations,Public Lands Grants Act, Arctic

Waters Pollution Prevention Act, Ocean Dumping Act, Fisheries Act, and Northern Inland Waters Act.

This doesn't even take into consideration the National Energy Board or Canada Oil and Gas Lands Administration, large organizations with their own sets of complicated regulations and procedures one would need to consider in the case of oil or gas development.

The number of organizations concerned with northern project review, the complexity and duplication of the regulations and processes involved, and the lack of clear government policy appears to upset industry and northern people alike. Changes taking place in the north as a result of political development and native claims threaten to confuse the issue even further. The National Energy Board's Task Force Report on Pipeline Construction Costs and the report of the Senate Committee on the Northern Pipeline have called strongly for simplication and clarification of regulatory and assessment processes in the north. The report of the Beaufort Sea Environmental Assessment Panel, representing four years of inquiry about major industrial development in the Beaufort Sea/Mackenzie Delta Region, has also called for improved and strengthened coordination mechanisms and legislation, as well as for the establishment of at least one new regulatory authority. Indian and Northern Affairs Canada has responded to these demands for the reduction of overlaps and duplication and the streamlining of approval processes by establishing the Northern Regulatory Review. A small team within the Department was set to work in the fall of 1983 to study the problem and report to federal Cabinet in

18 months time with recommendations for improvements. Since there exists a substantial body of literature about regulation and project assessment in the north, it was decided to provide for a system to collect and organize this material to back up the work of the researchers.

The research and information needs of the Northern Regulatory Review, like those of larger government inquiries such as the Royal Commission on the Ranger Marine Disaster, which we heard about yesterday, differ from those of a permanent library. We have to manage documentation generated by the inquiry as well as background information acquired to assist research, and make this information available throughout the inquiry as the strategy of the reviewers becomes further defined. Unlike royal commissions and other government inquiries, which sometimes may have to forego the administrative assistance of existing agencies in order to maintain an independent stance, we at the Northern Regulatory Review have had the advantage of being a temporary project within a more-or-less permanent government departmental structure. This has affected our documentation methodology in several ways.

We have decided to collect and keep on the premises as few documents as possible. Except for some materials the researchers consider vital "elbow" material, all documents are housed in libraries and documentation centres or, in the case of correspondence, in the department's Central Records Management Section.

We keep track of the call numbers of materials held elsewhere and use a unique numbering system, based on the department's records management classification scheme, to identify records as they are entered in our in-house database and to arrange the filing of documents we do decide to keep on hand. We are fortunate that we have the attention and support of the librarians in the department's main library as well as staff in smaller documentation centres and in Central Records. The main library has provided us with a copy of their microfiche catalog and hours of patient searching on online bibliographic databases. The physical proximity of these library and records management facilities - all those mentioned are within four floors of our office in the same building - also makes our work easier. The diverse nature of documents to be managed - letters, memos, journal articles, briefs, speeches, unpublished reports, as well as books, are included - and a desire on our part not to have too many systems working at once, influenced our decision to build our own in-house database to keep track of this material. We could not find a suitable, readily available, inexpensive microcomputer system, and the department had just finished installing new software on its automated office system on a minicomputer. This software allows us to create records for all types of material with field number and length as we like, has good word processing features for clean, well arranged bibliographic output, and the necessary subject and name retrieval capabilities. Using this office system rather than a database management system on a microcomputer has two major benefits: we have had all the technical work done by the information processing people in the department; and we have direct access to other uses of the office system, such as centralized logging of correspondence and docket control information.

The Northern Regulatory Review information management system has succeeded in integrating different types of materials by tying its functions to those already existing elsewhere in the organization. Our use of existing departmental resources has made it possible for us to build an information management system quickly and relatively cheaply, and allows the department's permanent facilities to absorb the various kinds of documentation after the review is complete.

SIBERIANA OF THE ELMER E. RASMUSON LIBRARY

BY

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Paper presented at the Tenth Northern Libraries Colloquy,
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INTRODUCTION

The Elmer E. Rasmuson library has a large special collection which is physically separate from the larger body of general library materials and is known as the Alaska Collection. Primary criteria for inclusion is geographic. The Library attempts to acquire all published materials about Alaska, Canada north of 60 degrees, Greenland, the northern provinces of Norway, Sweden, and Finland, as well as the northern portions of the Soviet Union, especially Siberia. This Alaska Collection presently contains between 55 and 60 thousand volumes consisting of monographs and individual volumes of serial runs.

In recent years, other Pacific Rim libraries of the United States have assessed their Russian language and Siberian holdings (Polansky 1983a, 1983b). Rasmuson Library has found it desirable to join in this regional program. However, like many libraries, we have found that geographic parameters for acquisition purposes do not easily lend themselves to analysis by subject content. In recent years Rasmuson has been unable to accurately evaluate holdiings about Siberia in terms of quantities, subject strengths and weaknesses as well as their relevance for an acquisitions strategy (Falk 1983). This paper reports preliminary results of an assessment of Siberiana and is part of an ongoing estimate of the quantity and relative strengths of subject categories of the Alaska Collection.

We must briefly define the geographic area known as Siberia.

Officially, Siberia has no definite boundaries. It occupies no place in the Soviet governmental diagram of administrative divisions. There is no republic, oblast', or city named Siberia. Russians speak of it colloquially as a vast region beginning approximately at the Ural Mountains and extending eastward through thousands of miles of deep forests, steppe, and tundra, and ending at an indeterminate line somewhere short of the Pacific Coast. They call the final stretch to the sea, the Far East. To the geographer, however, it is all Siberia, all the way to the Bering and Okhotsk seas. In this imprecision of dimension and definition, Siberia is seen in the Russian soul as a sweep of vastness, a land of exile and frontier, a place of dread and adventure. Thus it is in many ways similar in vagueness of definition similar to the more familiar geographic terms: the American West or The North in Canada. Altogether, Siberia occupies an area approximately equal to that of Canada and is one-third larger than the 48 contigious United States.

The official geographic lines which define the area called Siberia have not changed greatly since Tsarist times. The Tsarist government included the following guberniia's and oblast' regions in Siberian: Tobol'skaia guberniia, Tomskaia guberniia, Eniseiskaia guberniia, Irkutskaia guberniia, Zabaikal'skaia oblast', Iakutskaia oblast', Amurskaia oblast', Primorskaia oblast', and Semipalatinskaia oblast'. Of these, only the prerevolutionary areas of Akmolinskaia oblast', Semipalatinskaia oblast' and a portion of Tobol'skaia guberniia have been removed under the Soviet System.

The Soviets have divided the region into three major areas with various political and economic divisions: Western Siberia: including the oblast' regions of Tomsk, Tiumen, Omsk, Novosibirsk, Kemerovsk, Gorno-Altai autonomous oblast', the Altaiskii krai, and two nationality okrugs, Yamao-Nenetskii and Khanty-Mansiiskii. Eastern Siberia: including the Tuvinsk and Buriat ASSR's, Irkutsk and Chitinsk oblasts', Khakassk autonomous oblast', Krasnoiarskii krai, and four nationality okrugs, Ust-Ordynskii Buriatskii, Taimyrskii, Aginskii Buriat, and Evenskii. The Far East: including Yakutskaia ASSR, oblast' regions Sakhalin, Magadan, Kamchatka, Amur, Khabarovskii krai, and Primorskii krai, Evreiskaia autonomous oblast', and two nationality okrugs, Chukotskii and Koriakskii.

The Rasmuson Library attempts to collect Siberiana in all the regions under the Soviet System with three exceptions. It does not collect materials on the Gorno-Altai autonomous oblast', Tuvinskaiya oblast', or Primorskii krai. Thus Rasmuson Library Siberiana acquisitions are bounded on the west by the Ural Mountains, and on the south by the Trans-Siberian Railroad to the Amur River and down the Amur to the Pacific Ocean. Sakahlin Island and the Kuril Islands, together with adjacent Pacific coastal waters, constitute the eastern boundaries; while the Arctic Ocean and associated seas and islands provide the northern limits of collection efforts.

The geographic parameters established for the Alaska collection define as well the native Siberian languages to be included. The seven Paleo Asiatic languages (Krauss 1982) in the following analysis have played a major role in the process of ethno-cultural self assertion and identify of the native people of Siberia. Regional cultural development has been augmented by a bilingual education policy established by the Soviets in the 1930's, (Ak.nauk 1966) which has produced an important publication record for these northern minorities.

An informal geographical grouping of these languages divides them into those found above the Arctic Circle (Ak. nauk 1966) and those below. Languages above the Arctic Circle generally include: Chukchi, which is also known as the Chukotskii language, and the Luoravetlianskii language. The Koryak language, which is closely related to Chukchi and is often referred to in Soviet sources as the Inmilianskii language. The latter includes several major dialects such as Aliutorskii and Kerek. The language spoken in the Kamchatka region is Kamchadal, which is also known as the Itel'menskii language. Yuit, Yugat or Siberian Yupik is spoken on the Chukchi Peninsula and is written in the Cyrillic alphabet, in contrast to Siberian Yupik of St. Lawrence Island, Alaska, which is written in the Roman alphabet. Yukagir is a language which includes the Andandomni, Odul and Oolool-omni dialects. Those languages below the Arctic Circle include the Ket-Kot language family of Central Siberia as well as the Gilyak or Nivkhinskii language spoken in the Amur and Sahkalin areas. Within these language groups, works represented in the Alaska collection include such traditional language learning materials as grammars, dictionaries, readers, texts and folk tales.

For potential users, any evaluation of Siberiana must consider the language in which the material is published. In the recent Soviet period the overwhelming bulk of material about Siberia is, of course, published in Russian. However, during the earlier historic period from the 16th through the 19th centuries, many important contributions to knowledge were made by Western European explorers and scientists. These publications include diaries and notes of those who traveled the vast expanses of interior Siberia, as well as coastal explorers from several nations. These explorations include the history and literature on Russian America, around-the-world voyages, and Russian geopolitical relationships with major Western European powers. Thus, in addition to Russian, many of the early works about Siberia were published in German, English, French, Swedish, and a smattering of other languages.

METHODS

To assess the Siberian holdings of the Alaska Collection, it was decided to utilize the RLG conspectus format. The RLG Conspectus concept is an ongoing project of the Research Libraries Group, Inc. of the United States and some Canadian libraries. The RLG Conspectus is a tool for comparing and analyzing existing collection strengths for the determination of future collection policies and for distributing primary collecting responsibilities among member research libraries. It uses ranges of the Library of Congress subject classification schedules as a guide. The scale applied to evaluation of specific subject heading fields range from 0 to 5, with 5 as the most comprehensive (See Appendix I). These represent both existing collection strengths and current collecting intensities. The assessment also incorporates alphabetic language codes which identify the linguistic content of collections (See Appendix II). RLG members use conspectus data to compare their collections locally and regionally, as well as nationally and to identify those which serve as unique national information resources. Eventually, conspectus data combined with other fiscal information should assist universities in reallocating resources to serve many fields of scholarship in a more rational and cost effective manner.

Alaskan libraries have utilized the RLG conspectus concept to begin a cooperative effort to assess the strengths and weaknesses of library collections in the state. Beginning in 1982, the Alaska State Library provided grant funds to undertake this program. Additional information about the Alaska Conspectus program has been provided at this conference (Innes-Taylor 1984a).

Procedures used to develop a conspectus assessment instrument for evaluating the Siberiana collection of the Rasmuson Library are outlined below. Time did not allow a complete assessment of all Siberian subject areas. Therefore, it was decided to assess only the social sciences and humanities and delay assessment of physical and biological sciences to a future date. Utilizing the definition of social sciences found in the International Enclyclopedia of Social Sciences (1968), assessment included the following subject areas: anthropology, economics, geography, history, law, political science, psychiatry, psychology, sociology, and statistics.

Once the subject areas to be assessed had been determined, relevant Library of Congress schedules for these subject areas were consulted. In each schedule, all apparently relevant subject listings were checked. For example, under history in the D Schedule, headings such as Siberia, Northern Asia, Russia in Asia, and Arctic Ocean were identified. Subject areas subdivided by region or country were frequently among the items to be assessed as well. The Library of Congress subject class (alphabetical letter, number) and the descriptive terms were then transformed into conspectus worksheets. An example of a conspectus assessment worksheet is provided on the following page of this report.

Assessment conspectus worksheets are divided into columns which provide a place for insertion of data during the assessment process. A column for comments is also available. Any or all of the following criteria for assessing collections may be included in tabular form on the assessment conspectus worksheets: chronological coverage, language, principal authors, principle

CONSPECTUS WORKSHEET: ALASKA AND POLAR REGIONS COLLECTION

INSTITUTION: Rasmuson Library

LC Class Equiv.	Subject Group	ECS	CCI	Comments
DK 1 - 275	Russia, General			
DK 501	Northern Russia			
DK 503	Eastern Russia			
DK 511.Y3	Yakutia			
DK 750	Russia in Asia, general works			
DK 751	Siberia, Periodicals, Societies			
DK 754	Siberia, Description and travel, Early to 1800			
DK 757	Siberia, Antiquities			
DK 758	Siberia, Ethnography, races			
DK 759.08	Siberia, races, Ostiaks			
DK 759.T9	Siberia, races, Tunguses			
DK 771	Siberia, local history and description, regions, provinces, etc.			
DK 781	Siberia, Cities, towns, etc., A-Z			

works, primary sources, criticism, commentary, interpretation, complete sets, periodical coverage, number of volumes, and circulation data. Language coverage codes may also be added. These are: E - English language, F - selected foreign language material included, W - wide selection of foreign language material , and Y - material is primarily in one foreign language (See Appendix II).

For this preliminary paper, assessment was restricted to the following categories: language, principle works, primary sources and number of volumes. A very preliminary evaluation based on conspectus collection intensity indicators is also included (See Appendix I). Statistical results of our assessment of the social sciences and humanities are summarized in Tables I and II presented below.

RESEARCH RESULTS

It is evident that within each class the Rasmuson Library has certain strengths and weaknesses in its collection of Siberiana. In Table I, for example, as an academic library Rasmuson could support student research about Siberia as a general historical topic and ethnography as well, but not archeology. Under the heading, Siberian Geography and Anthropology, it would appear that Rasmuson could support student research in physical geography, anthropology and ethonology but not oceanography.

In Siberian languages our only true strength is in Eksimo

TABLE I STATISTICAL SUMMARY OF RASMUSON LIBRARY SIBERIANA IN THREE LCCLASSES

CLASS	TOPIC	RUSSIAN	ENGLISH	OTHER	TOTAL
	HISTORY OF SIBERIA				
DK	RUSSIA IN ASIA GENERAL WORKS	26	10	8	44
DK	SIBERIA DESCRIPTION AND TRAVEL	18	72	20	110
DK	SIBERIA ANTIQUITIES	11	0	0	11
DK	SIBERIA ETHNOGRAPHY	34	10	1	45
DK	SIBERIA HISTORY	35	9	4	48
DK	SIBERIA LOCAL HISTORY AND DESCRIPTION	118	24	12	154
	SIBERIAN LANGUAGES				
P	LANGUAGES OF CERTAIN GEOGRAPHIC AREAS	0	0	12	12
PM	POLYGLOT - GENERAL	0	0	3	3
PM	CHUKCHI LANGUAGE	0	0	3	3
PM	GENERAL AND COMP. ESKIMO LINGUISTICS	5	6	3	14
PM	GILYAK LANGUAGE	0	0	2	2
PM	KAMCHADAL LANGUAGE	0	0	2	2
PM	KORYAK LANGUAGE	0	0	2	2
PM	KOT LANGUAGE	0	0	0	0
PM	KET LANGUAGE	0	0	5	5
PM	YUIT LANGUAGE	0	0	61	61
PM	YUKAGIR LANGUAGE	0	0	2	2
	GEOGRAPHY AND ANTHROPOLOGY				
G	GEOGRAPHY - GENERAL	3	1	0	4
GA	MATHEMATICAL AND ASTRONOMICAL GEOGRAPHY	0	1	0	1
GB	PHYSICAL GEOGRAPHY	71	16	3	90
GC	OCEANOLOGY AND OCEANOGRAPHY	4	6	0	10
GF	ANTHROPOGEOGRAPHY	0	0	0	0
GN	ANTHROPOLOGY SOMATOLOGY ETHNOLOGY ETC	53	6	0	59
GR	FOLK LORE	17	1	1	19
GT	MANNERS AND CUSTOMS	1	0	1	2
GV	SPORTS AND ENTERTAINMENT	0	0	0	0

* For complete summary see Table II

linguistics. However, at this point in time Siberian languages are difficult to evaluate since there has been no opportunity to assess the total publication record of these languages. Thus the two volumes on the Yukagir language may represent a large portion of the published monographic literature about this minor linguistic group. It may also be impossible to determine accurately, because minorities and nationality status are extremely sensitive political issues about which little information is available outside the Soviet Union.

Some explanation of the deviations from strict Library of Congress linguistic tables is in order regarding Table I. To improve bibliographic control and organization in the area of Siberian native languages (and Alaska Native languages as well) the LC Classification scheme for the Alaska Collection has been expanded within acceptable perimeters set by Library of Congress. The changes reflect natural linguistic interrelationships as the basis of organization, rather than the alphabetic arrangement of Library of Congress. This can be seen in the PM Siberian language class arrangement included in Table I.

Table II is an overall summary of our findings. It is now clear that the Rasmuson Library owns a total of 985 monographs on Siberian social sciences and humanities. Ninety six per cent of Rasmuson's Siberian holdings are to be found in four LC classes. These are: history, geography and anthropology, social sciences, and languages and literature. Other categories are so small as to be insignificant. The reader is cautioned that these findings

TABLE II STATISTICAL SUMMARY OF RASMUSON LIBRARY SIBERIANA IN THE SOCIAL SCIENCES AND HUMANITIES

L.C. CLASS	SUBJECT	RUSSIAN	ENGLISH	OTHER	TOTAL
A	GENERAL WORKS POLYGRAPHY	1	0	0	1
B	PHILOSOPHY RELIGION	6	2	0	8
C	HISTORY AUXILIARY SCIENCES	1	0	0	1
DK	HISTORY AND TOPOGRAPHY RUSSIA	242	125	45	412
G	GEOGRAPHY ANTHROPOLOGY	149	31	5	185
H	SOCIAL SCIENCES	150	9	0	159
J	POLITICAL SCIENCES	5	0	0	5
L	EDUCATION	1	0	0	1
M	MUSIC	0	0	0	0
N	FINE ARTS	12	0	0	12
P	LANGUAGE AND LITERATURE	86	7	95	188
Z	BIBLIOGRAPHY AND LIBRARY SCIENCE	13	0	0	13
	TOTAL SIBERIANA	666	174	145	985

are preliminary. They do not include the physical and biological sciences and we believe that Rasmuson Library has nearly as many monographs on the geology of Siberia as all social sciences and humanities combined. The physical and biological sciences will be assessed in the near future and will provide a more complete picture of our Siberian holdings.

From this assessment it is now evident that the majority of the Siberian materials are in the Russian language; Russian outnumbering English nearly four to one. Rasmuson has 4.5 Russian books for every item in other languages. However, English and other languages nearly equal the Russian language holdings. These statistics support the Library's desire to build an international information resource not limited to English or Russian languages.

A very tentative evaluation of the Siberiana holdings of the Rasmuson Library has been attempted. On the basis of this preliminary assessment, we would rate our holdings at 1a: "Minimal, with uneven coverage, unsystematic representation of subject" (See Appendix I for a summary of evaluation criteria). Four subject categories, including history, anthropology physical geography, and Eskimo linguistics we would rate as 3a: "Basic instructional level".

These preliminary conclusions should be approached with some caution. Librarians have historically tended to be too critical of their collection content relative to non-librarians in this type of evaluation process. Additionally, less than half of the

Rasmuson Library's subject categories on Siberia have been assessed in this report. Nor does this preliminary evaluation include consideration of all the criteria for assessing collections. For instance, chronological coverage, principal authors, principal authors and works, complete sets, and circulation data have not been included at this time.

This evaluation has already begun to affect the Library's acquisition of Siberiana. In the future, Rasmuson Library will no doubt attempt to emphasize those subject categories of evident weakness. It will, of course, continue to acquire materials in subjects of evident strength but greater emphasis will be placed upon building the collection's weakest subject areas. This assessment has awakened our interest in evaluating other aspects of the Alaska and Polar Regions collection. Hopefully, such assessment will be possible in the near future.

REFERENCES

1. Akademiia nauk SSSR. Siberskoe otdelenie (1966). Iazyki i fol'klor narodov sibirskogo Severa. Leningrad:Nauka. pp. 27-29.

2. Falk, Marvin (1983). Russian language resources in Alaskan libraries and archives. Paper presented at the Alaska-Hawaii Library Association Tri-Conference, Honolulu. p. 3.

3. Innes-Taylor, Cathy (1984a). Collection development in a northern environment. Paper read at the Tenth Northern Libraries Colloquy, St. John's, Newfoundland, August 12-16.

4. Innes-Taylor, Cathy and Dennis Stephens (1984b). Cooperative collection development and the Alaska/Polar Conspectus. Paper presented at the Annual Meeting of the Alaska Library Association, Sitka, Alaska, March 5-7.

5. Krauss, Michael C. (1982). Proposed library classification for Alaska Native language books, etc. Fairbanks: Alaska Native Language Center.

6. Library of Congress. Subject Cataloging Division (1973). Classification . Class A: General works. (4th edition.). Washington: Library of Congress.

7. Library of Congress. Subject Cataloging Division (1979). Classification. Class B, Subclasses B - BJ: Philosophy, Psychology. Washington: Library of Congress.

8. Library of Congress. Subject Cataloging Division (1962). Classification. Class B, Part 2: BL - BX: Religion. Washington: Library of Congress.

9. Library of Congress. Subject Cataloging Division (1975). Classification. Auxiliary Sciences of History. (3rd edition.). Washington: Library of Congress.

10. Library of Congress. Subject Cataloging Division (1959). Classification. History: Class D, General and Old World. (2nd edition.). Washington: Library of Congress.

11. Library of Congress. Subject Cataloging Division (1976). Classification. Class G: Geography, maps, anthropology, recreation. (4th edition.). Washington: Library of Congress.

12. Library of Congress. Subject Cataloging Division (1981). Classification. Class H, Subclasses H - HJ: Social Sciences, economics. Washington: Library of Congress.

13. Library of Congress. Subject Cataloging Division (1980). Classification. Class H, subclasses HM - HX: Social Sciences, sociology. Washington: Library of Congress.

14. Library of Congress. Subject Cataloging Division (1966). Classification. Class J: Political Science. (2nd edition.). Washington: Library of Congress.

15. Library of Congress. Subject Cataloging Division (1966). Classification. Class L: Education. (3rd edition.). Washington: Library of Congress.

16. Library of Congress. Subject Cataloging Division (1978). Classification. Class M: Music. (3rd edition.). Washington: Library of Congress.

17. Library of Congress. Subject Cataloging Division (1970). Classificastion. Class N: Fine Arts. (4th edition.). Washington: Library of Congress.

18. Library of Congress. Subject Cataloging Division (1965). Classification. Class P, Subclasses PJ - PM: Languages and literature of Asia, Africa, Oceania... Washington: Library of Congress.

19. Library of Congress. Subject Cataloging Division (1965). Classification. Class PG: Russian literature. Washington: Library of Congress.

20. Library of Congress. Subject Cataloging Division (1980). Classification. Class Z: Bibligraphy and library sciences. (5th edition.). Washington: Library of Congress.

21. Polansky, Patricia (1983a). An assessment of Siberian Bibliography. Honolulu: Hamilton Library, University of Hawaii. p. 1.

22. Polansky, Patricia (1983b). Russian Pacifica collections: Siberia at the University of California, Berkeley. Berkeley: University of California. p. 3.

23. Sills, David L., ed. (1968). International Encyclopedia of the Social Sciences. New York: Macmillan. pp. XXI - XXIII.

APPENDIX I

Alaska Conspectus Collection Intensity Indicators

Adapted from RLG Collection Development Manual
Second Edition 2-24-84

0. Out of scope: The library does not collect in this area.

1a. Minimal, with uneven coverage: Unsystematic representation of subject.

1b. Minimal, but chosen well: Few selections made, but basic authors, core works, and ideological balance are represented. Can support elementary school instruction and the most fundamental public and academic library inquiries.

2a. Basic information level: A collection of up-to-date general materials that serve to introduce and define a subject and to indicate the varieties of information available elsewhere. It may include dictionaries, encyclopedias, historical surveys, bibliographies, and periodicals in the minimum number that will serve the purpose. A basic information collection can support secondary school instruction and routine public library inquiries, but is not sufficiently intensive to support higher-level academic courses or independent study or the wide-ranging recreational reading demands of a highly educated general public.

2b. Augmented information level: As above, except more major periodicals, selected editions of important works, wider selection of reference materials.

3a. Basic study level: Includes the most important primary and secondary literature, a selection of basic representative journals/periodicals, and the fundamental reference and bibliographical tools pertaining to the subject. Adequate for curriculum support for basic undergraduate instruction. Adequate for independent study and for the lifelong learning needs of the general public, with coverage at all appropriate reading levels.

3b. Intermediate study level: As above, except a wider range of basic monographs, wider selection of the more important writers and secondary materials, stronger journal/periodical support. Collection adequate to support college-level term paper writing.

3c. Advanced study level: As above, except adequate for honors undergraduate or most graduate instruction or sustained independent study; adequate to maintain knowledge of a subject required for limited or general purposes, but not strong enough for original research in a subject. It includes complete collections of the works of the important authors, selections fromt he works of secondary writers, a selection of representative journals/periodicals, and all the reference tools and fundamental bibliographic apparatus pertaining to the subject.

4. Research level: A collection that includes the major published source materials required for dissertations and independent research, including materials containing research reporting, new findings, scientific experimental results, and other information useful to researchers. It is intended to include all important reference works and a wide selection of specialized monographs, as well as a very extensive collection of journals and major indexing and abstracting services in the field. Older material is retained for historical research.

5. Comprehensive level: A collection in which a library endeavors, so far as is reasonably possible, to include all significant works of recorded knowledge (publications, manuscripts, other forms), in all applicable languages, for a necessarily defined and limited field. This level of collecting intensity is one that maintains a "special collection"; the aim, if not the achievement, is exhaustiveness. Older material is retained for historical research.

APPENDIX II

Alaska Conspectus Language Coverage Codes

E - English language material predominates; little or no foreign language material in the collection.
F - Selected foreign language material included, in addition to the English language material.
W - Wide selection of foreign language material in all applicable languages.
Y - Material is primarily in one foreign language.

The language codes may be added to the numbers when the codes usefully qualify the values reported. Language codes should be omitted when they are superfluous. (For example, it goes without saying that a research-level collection in French history will be primarily in French; the "Y" is understood and may be omitted). Language codes should be applied consistently throughout the worksheet, line by line. The "Comments" section should not be used to indicate general language levels. The use of language codes for collections at level 3 or higher is encouraged so that potential assignments for primary collecting responsibilities can more easily be determined.

Criteria for Assessing Collections

1. Chronological coverage:
   Are older and newer materials consistently represented? Should they be?

2. Language coverage:
   How extensive is appropriate or significant foreign language coverage of the subject in the collection?

3. Principal authors:
   Are the standard, chief, or more important authorities and authors included?

4. Principal works:
   Are the classic, standard, essential and important works in the collection?

5. Primary sources:
   Are critically edited original texts and documents included? How extensively?

6. Criticism/commentary/interpretation:
   How completeis secondary monographic or critical treatment?

ARCHIVAL FRONTIERS IN NEWFOUNDLAND AND LABRADOR

Doris Saunders, Them Days Labrador Archives

When I was hired by the Labrador Heritage Society/Old Timer's to compile and edit a magazine about Labrador by Labradorians, my only instructions were to collect some stories on tape, transcribe, edit and put together the magazine. The only experience I had was years and years of begging for and listening to the stories of the older people of Cartwright. I began doing interviews with people I had known for years and we talked about familiar things. The idea, in the beginning, was just to put together one book. However, after three months of collecting, there was enough material to put out several books and we had only been talking with about twenty people, just touching the tip of the iceberg.

While the idea of 'a magazine' was being talked about by the Heritage Society, the Company of Young Canadians hired Ike Riche, a senior citizen and expert story-teller, to go to Rigolet, North West River and Happy Valley to talk with some of his old trapping pals and their wives. Around the same time John Broomfield volunteered to talk to some of his friends on the north coast. Then I was hired to collect a few more tapes. Ike's and John's tapes focused mainly on trapping and tales of the north. I supplemented those tapes with stories about the Spanish Flu, home remedies, tales of tragedy, ghost stories and a craft item. This set the format for Them Days. In most cases the interviews started by establishing the identity of the person being interviewed, tracing their families back as far as they could go (doing a bit of genealogy), talking about their earliest memories and working up to the present, telling stories they remembered being told by older people and whatever else came to mind. I found that after we got to talking for a while they would almost forget the tape recorder was there and really get into the fun of story-telling. There was one time that _I_ got so wrapped up in a story that I forgot the recorder and talked with the person for almost two hours using one side of a sixty minute tape. While you're talking to a person they will lead into many different topics and give you names of other people who shared their experience or had one like it, or they would tell you of someone who had some really unusual tale to tell. There is no end to the fascinating yarns in Labrador, we just don't have enough years to record it all.

The first few years of _Them Days_ most, if not all, interviews were on general information but, as the years slipped by, themes began to emerge and we got more and more specific material, i.e. Indian Harbour, Muddy Bay School, The McNeill's of Island Harbour, The Kyle and so on. Of course when we interview someone for a particular topic we don't stop with that, we go on to whatever else the person can think of at the time. That's what makes it all so interesting, one thing leads to another and another and another. Sometimes a person will be telling about a caribou hunt and while he's talking he will be reminded of something else so he will get off on another story. I have found that the best thing to do in that case is to let him finish the second story before steering him back to the first, because what usually happens when you try to concentrate on one story at a time you end up with a not-so-good story where you could have had two good ones. The best thing is to keep in your mind where the first story got interrupted and go back to it after. Getting the stories in one piece can be done during the editing of the transcript later.

One thing I learned very early was the importance of trying to eliminate as much background noise as possible. I did one tape where someone in the next room had a radio on and my recorder was very sensitive to radio signals. I ended up with precious little of the interview but a pretty good recording of part of a radio program. Another time I was talking with a man and his daughter was doing dishes in the same room - another tape of wasted labour. I haven't yet figured out how to ask people to 'keep the noise down' in their own homes. Another problem is people who don't mind being interviewed if they don't have to see the recorder. Ike Riche interviewed a women in Rigolet and he placed the recorder on his knees under the table. That's an excellent tape of Ike's questions and a very soft voice away off in the distance. Judy Ford tried interviewing a woman in Nain holding the recorder behind her back. There wasn't even any questions on that tape, just some very muffled sounds and then dead silence followed by more muffled sounds.

We are very particular about preserving the phrasing and sound of speech, so the transcribing of a tape is as important as doing the interview. I was rewarded for my efforts in this respect when I published one of Uncle Bill Pottle's stories after he died. His daughter came to me one day and thanked me for giving her back her Dad. She said, "When I read this story in

Them Days I can almost see him because you put it there exactly as he said it." I might be considered to be a bit too particular about the transcripts because I haven't found any more than two people besides myself that I would trust to transcribe. One girl had a habit of writing the opposite word. If it was 'a hot day' she would write it was a 'cold day'. She didn't do it all the time but it happened often enough that I would not trust her transcripts. Another woman got tired after the first half hour and did the rest of the tape writing, 'he's talking about fishing', 'now he's talking about gardens' and 'he's talking about fishing again'. It's one area where I tell myself if I want it done right I better do it myself.

It is important that a person who is collecting folk lore/ oral history be someone who is familiar with the ways, sensitive to the feelings of the people and has a great deal of pride in their heritage. A lot of doors have been opened for me because my father was well-known, almost throughout Labrador, as a fine man and a great story-teller. I've approached people for stories and sensed them to be reluctant, then I told them I was Don Martin's daughter and the atmosphere changed instantly. Many people think their lives have been too common, too boring, to be of interest to anyone else. After I published one man's story he said, "You must have dressed it up, maid." I said I had only taken out where he had repeated himself in several places and rearranged some of the sentences and paragraphs, but it was his story. His response was, "I didn't know my life was so exciting." But even though so many of the older people feel they led very dull lives, there is so much pride in them when they talk about them days, or as Uncle Bill Martin would say, 'in times aforenow'.

It hasn't been all roses and sunshine though, sometimes you know of a person who has some great yarns and you also know that neither love nor money will get them to talk if there is a tape recorder within two miles. My policy is to ask them a few times. Some people like to be coaxed a bit. But every once in a while I find someone who says no and I sense right away that they mean it so I don't ask again. Once in a while someone will come forward voluntarily but if they don't they have learned that I won't badger them no matter how badly I would love to have their stories. It's better to lose a few stories than to build up a reputation as a pest. Being a local can sometimes be a bit of a handicap especially when you're talking with people who have known you since the day you were born. I was doing an interview with an old fellow, who knew that I had salmon fished for two summers and been cut-throat with a fishing crew another summer, and I kept asking him how and why they did certain things. Finally he looked at me and said, "What's wrong with you? You know that as well as I do." Still, being a Labradorian helps because you have a built-in knowledge of Labrador and you can pick up on little clues, phrases and words which you can use to draw stories out. People from outside of Labrador can contribute a great deal too. When Nigel Markham, a Them Days volunteer, was doing interviews on the north coast, he was able to get some of the best interviews we have on file. He didn't know an awful lot about trapping, fishing or why people lived where they did and so on. Because he was a new-comer people went to great lengths to explain things to him.

It really pays to have both locals and new-comers working at Them Days, because one balances the other, at least that's how it has worked so far.

We are away behind on getting our taped interviews filed in an organized manner. Each tape is filed under the name of the person being interviewed and in chronological order, i.e. if Mickey Bird was the first person to be interviewed, the tape is filed under BIRD, MICKEY - tape # 1 and if he was interviewed again, say a year later, that tape might be BIRD, MICKEY - tape # 54. We have a rough subject index for each tape. As each tape is transcribed it is photo-copied, with the original going in the archive files and the Them Days working copy is broken down by subject matter and filed as such. As each tape is transcribed the working copy is first filed by name and later, when we get the time, it is broken down by subject. We now have approximately 500 tapes, of that number about 40 are edited transcripts, 12 are archivally transcribed (questions and answers) and numerous extracts have been taken from other tapes as needed for publication.

A major problem in the first year of Them Days was a lack of photographs to accompany the stories we were publishing. We were aware of a large number of private collections but did not have easy access to them. We found out very early that one of the most prized of possession in Labrador is the photographs. Nigel Markham, who was doing our photographic work at the time, decided something should be done to preserve the old photos and to develop a photographic file. A proposal was presented to the Labrador Inuit Association to collect and document family collections on the north coast and to gather photos from existing collections; such as the Provincial and National Archives, Bowdoin College, Yale University, the Smithsonian Institution and so on. This project was approved and funded by LIA and, with their permission, a set of negatives was given to Them Days. Nigel spent the next year copying photographs using a 35 mm format rather than the professionally acceptable 4 x 5 format, due to financial restrictions. A coding system was developed to include all areas of Labrador. An alphabetical system was used based on the geographic location and running in a north/south direction; that is, the most northerly location, Killinek/Ramah, was assigned the letter A, and the most southerly location, Forteau/L'anse eau Claire, was assigned the letter Z. A photo was given a letter followed by a number; the first photo of the Killinek/Ramah file is A000.001 and so on. Our largest file is Nain and area, which is now up to D001,160. The process was to borrow a collection, assign codes for each and attach it to the photos, shoot at least three negatives of each photo, process the film, print contact sheets, type index card for each photo giving Location, Date, Description and Source, attach the contact print to each index card and match up the negatives in acid-free holder. The index cards and negatives are stored separately and, due to the importance of the negatives, the negative files are very strictly controlled.

The photographic file is indexed according to location. We also have most of the collection cross-indexed by people's names. We hope some day to have each photo further indexed by subject matter and activity. When we first began collecting photographs, a lot of emphasis was placed on the technical quality of the photo being copied. We have relaxed that rule a great deal and are collecting for subject matter as well. There might be just one very poor photo of a particular person or object, so our theory has become: a poor photo is better than no photo. We have done a bit of amateur restoration work on some photos to get the quality up good enough to use it in Them Days.

Our total collection of coded and indexed photographs is 5511. There are another approximately 4000 negatives that are ready for doing contact prints, indexing and filing. There are many, many other collections in Labrador, alone, that we know about but we haven't the staff or finances to do more than think about them. Some of the collections are Ernie Lyall's, May Learning's, Dillon Wallace II's and John Michelin's.

Since 1978 and the arrival of Judy McGrath to Them Days, we have begun a more concentrated effort to collect documents, letters, diaries and any other 'paper' records that are 'out there'. This started out being solely reference material for Them Days. As we gathered more and more material, it became obvious that we would have to organize it in a way that would make it more easily accessible to us. Also by this time we were getting requests for information on Labrador from near and far. We were getting so many requests for tourist information, that in 1979 we published a 64 page guide, Alluring Labrador, giving people current information about Labrador and a good deal of the rich historical background at the same time. We were asked to develop and curate exhibits by the Memorial University Art Gallery, which we did. We put together three exhibits; Faces of Labrador (a photographic show), Grasswork of Labrador which toured eastern Canada, Ontario and the Smithsonian Institution in Washington DC; and Labrador Pastimes, toys, games and amusements. We drew on our resources at Them Days and also added to our collection of material while doing research for the shows. Each exhibit seemed to be better than the one before it.

As our archival collections kept growing by leaps and bounds, we talked of turning our collection into an archive that could be used by the public. We approached the Provincial Archives for help in setting up and their response was immediate. Within a short time boxes of duplicate papers and books began arriving from St. John's. It finally hit us that two small, over-worked, souls would not be able to keep up the work of Them Days and organize an archive as well, so we decided, whether it was financially feasible or not, we would have to try and hire another person, or two. In September Barbara Wood joined our staff and, a couple of weeks later, Margie Chang from the Provincial Archives came up to Happy Valley to give us a crash course in how to set up an archive and gave us some instruction in the care and conservation of archival materials; cleaning and encapsulating. It is encouraging to us that the Provincial Archives are keeping informed about our activities and will be sending someone back to us in the spring to give us some further training; this time in cross-indexing our files. It is hoped by them, and us, that at least once a year someone from the Provincial Archives will visit the Them Days Labrador Archives.

It has been noted that the exciting aspect of Them Days treatment of its archival material is that we are bringing it back to the public in a very enjoyable way; in the pages of Them Days, in published diaries, exhibit catalogues and Labrador information books. The whole collection of Them Days can be woven together, like a patchwork quilt, and still have a strong thread running through it; that's the essence of Labrador.

ARCHIVAL FRONTIERS IN NEWFOUNDLAND AND LABRADOR

Nancy Grenville, Centre for Newfoundland Studies

Doris has described her work of creative collecting over the past nine years and the practical problems of establishing the Labrador regional archives at Them Days. Almost single-handedly she has caused a significant increase in cultural consciousness and understanding between the many isolated communities of the coast. She has built a resource of great value to researchers in many disciplines and gone a long way toward securing the financial framework which will produce permanent funding. If all the regions of Newfoundland had a Doris Saunders we would indeed be a 'have' province, but I'm afraid she's a non-renewable resource.

In the time that's left I should like to raise some of the theoretical issues which face archivists on the frontier as well as in the heartland of Canada. I am concerned with the challenges which the trend to regionalism present to the established institutions: in Newfoundland these are the Provincial Archives, the Provincial Museum and the Provincial Library, operating under the Department of Culture, Recreation and Youth, and Memorial University. All of these institutions are collecting unique materials of historical importance to society, and the extent to which we compete or cooperate dictates the quality of the record which we can preserve and make available to the public.

It is important to remind ourselves that in the past 100 years Canada has developed an archival tradition quite different from those of Europe and the U.S. Known as the 'total archives' approach, it has enabled the Public Archives of Canada and most of the provincial archives to acquire both official records and a broad range of private material in all documentary media, in order to build the fullest possible record of historical development.

This approach proved to be not only a very efficient use of limited resources for providing proper facilities but was welcomed by researchers as eminently user-friendly ... one-stop research. Whereas, for instance, in Britain or the U.S. the Public Records Office or National Archives houses only government records and all others, private papers and those of all non-governmental organizations, must be sought in a wide variety of repositories, our Canadian and provincial archives have had the mandate to collect in all sectors. Centralist in practice, this policy took advantage of economies of scale and provided justification for developing specialized staff and technical facilities, security and environmental controls. In areas where no other professional facilities existed archival material was saved from neglect. Not surprisingly, tensions developed between the federal and provincial levels and these rivalries have now increased with the burgeoning of locally-based archives, church, corporate, ethno-cultural collections etc. Just as the overly acquisitive approach of the Public Archives of Canada has, in the last decade, been tempered by a deliberate attempt to coordinate federal and provincial acquisition strategy, cooperation must now spread through the system to the regions.

Four years ago the Consultative Group on Canadian Archives produced a landmark study known as the Wilson Report, which examined the entire archival system in Canada and recommended new policy directions. The Wilson Report acknowledges the dangers of removing records to a central archives, the inevitable selection and distortion of their local significance, the inhibition of a local initiative to preserve other materials if the best are creamed off, and the importance of local pride and identity. Their recommendation was that "wherever possible, governments, institutions and other corporate bodies should be encouraged to develop their own archives. Where now there are incentives to place older records in major public archives these incentives should be reversed or parallel incentives should be established to assist the institution in preserving its own records."[1] Furthermore, they suggest that publicly funded archives should revue their mandate. If, as in the recent Newfoundland Archives Act, they are directed to 'discover, collect and preserve records having any bearing upon the history of the province, including records originating from private sources', they may consider that this need not necessarily be interpreted as a responsibility to gather them in one repository.

> This responsibility can also be fulfilled by fostering the development of appropriate institutional, corporate, or local archives. In so doing a much broader spectrum of historically important materials can be preserved, the full financial burden does not fall directly on the public purse and the archives remain a living part of their institutional or local community. ... We recommend that all public archives reevaluate their overall programs to achieve an appropriate balance between their traditional institutional programs and new programs designed to provide leadership to a cooperative system of archives in their region.

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[1] Wilson Report, p. 62.

> Similarly all other archives with wide acquisition mandates need to reevaluate and define their roles no longer in isolation but in relation to the evolution of comprehensive provincial and national systems. They need to assess their strengths and weaknesses and define what role they are best suited to perform within the system with their current resources.[2]

So what does this mean? The Wilson Report has reaffirmed the principle that records, whether government, commercial, religious etc. should remain with their origins, it has given the green light to decentralization and thrown a large burden of responsibility upon the archival profession, the provincial governments, and other large institutions to make it work without detriment to the public. In Newfoundland we have responded to the challenge by establishing the Association of Newfoundland and Labrador Archivists as a forum for consultation between archival collectors in the province - the rudimentary basis for a coordinated network which should eventually establish common priorities and develop services, facilities and programs of benefit to all. Fully developed such an advisory group should set standards, coordinate purchase of supplies, provide educational and consultative services to newly established archives, and eventually take a role in influencing the funding policy of the provincial government, who first need to be impressed with the importance of this cultural resource. We dream on!

Our provincial archives has recently established by statute a branch responsible for public records management. (As Doris indicated, they have also provided help in establishing Them Days archives.) But no such guidelines exist for the University collections and no management policy has been established for

[2] Wilson Report, p. 66

the University's own records. The University also represents a large block of the users of all our archival facilities. It is in their interest to promote the proper preservation and accessibility of the primary materials of their research. Understandably their own convenience is best served by the centralist mystique - only the University can provide the security, reference facilities etc. etc. By encouraging this paternalistic view and continuing a broadly acquisitive policy, its own resources are strained, regional and corporate interests are not encouraged to bear their share of core funding for the preservation of their own records, and much material which might be attracted to local collections remains in private hands rather than becoming an anonymous drop in a distant institutional bucket.

The financial resources available for cultural development in Newfoundland are understandably scarce, but if we are to compete for a place in what sunshine there is, the major archival institutions must get their act together and provide a comprehensive plan for collection development. They should develop an active outreach program, not to acquire more material than they can digest themselves, but to assist in establishing standards of security and curatorial training in regional collections which can become an educational tool within the community and an attraction for scholars from outside. The Provincial Museum together with the Newfoundland Museum Association has been moving in this direction for some time. THEM DAYS provides proof of the pudding.

References:

Consultative Group of Canadian Archives, Canadian Archives, Report to the Social Sciences and Humanities Research Council, Ottawa, 1980. (Wilson Report)

THE CENTER FOR ARCTIC CULTURAL RESEARCH
AT UMEA UNIVERSITY, SWEDEN

Roger Kvist
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BACKGROUND

The first step towards a university in Umea was taken with the foundation of a dental college in 1956, followed by a medical college in 1959. The principal aim was to increase the number of dentists and physicians serving in the North. The university was inaugurated in 1965 with faculties of arts, social sciences, mathematics and natural sciences as well as medical and dental faculties. Later other institutions were absorbed into the university, among them the College of Social Work and the Teachers Training College. Within the faculties new departments have been added. Today the university has a student body of about 8,000.

The foundation of a university in Umea meant that a new dimension was added to academic research in Sweden - the northern perspective. Earlier scholars did not avoid the study of northern Sweden, but with a few exceptions their studies were marked by a southern perspective. The new university naturally also meant an increase in the amount of research done on the

North. Research and education has been brought closer to people. For example, through courses in local history, the people of the North have not only received new knowledge about the heritage and new pride about it, they have also had the opportunity to be active participants in the process of research.

The northern perspective in research has been expressed in several research projects, i.e. "Land-use North", "Forest Saami and their land-use and economic problems" and "the Gulf of Bothnia maritime culture project". Not the least it's been a characteristic of a large interdisciplinary project which analyzed the resource utilisation along the Lule River from the mountains to the sea during 2000 years, from a social, economic and ecological perspective. This "Lule River project" has now reached its final phase and the resulting synthesis is awaited with great eagerness.

The Center for Arctic Cultural Research developed as a natural consequence of this new dimension in research. Its main objective is to stimulate and develop the northern perspective within cultural research. The Faculty of Arts proposed as early as 1979 on the basis of, among other things, the experience won during the planning of the "Lule River project", that a center of this kind should be created. This was judged very positively by the university administration and the Department of Education and was budgeted by the government from July 1, 1983. The positive response during the present budget situation shows the importance attached by the government to a northern perspective in research.

OBJECTIVES AND ORGANIZATION

Arctic cultural research signifies humanistic research within the whole circumpolar zone including both arctic and boreal/sub-arctic regions. The problems to be studied will be found within the field of humanistic research with a close connection to social sciences and ecology. Geographically the studies can encompass large parts of the circumpolar zone or smaller areas of interest in a larger circumpolar context. The ultimate goal of the Center can be summarized as follows:

1. Initiate and carry out research concerning circumpolar problems which relate to cultural development.
2. Collect material concerning circumpolar research on an international basis, provide information about our own research, and maintain contact with international organizations in this field.
3. Organize seminars and provide education concerning circumpolar problems which relate to cultural development.
4. Promote flexibility in research and encourage the interplay of different orientations and disciplines in studying circumpolar problems.

The circumpolar approach is a natural consequence of the northern perspective in research. The natural environment has a great homogeneity around the pole, cultures in these areas are strongly impressed by nature and the similarities in an east-west direction is often greater than between north and south.

Arctic cultural research in Scandinavia will to a great extent touch on problems of importance to the Saami Nation. It is the aim of the Center to maintain good relations with the Saami community and to conduct its activities in a manner ethically and methodically acceptable to them.

The Center is a working unit of the Faculty of Arts which in turn bears the responsibilities for its activities and maintenance. It is important to stress that the Center shall act as a support and co-ordinating body, the main bulk of arctic research must be done within the departments of the Faculty.

The governing board of the Center is appointed by the Faculty and contains representatives from archaeology, ethnology, Finnish, history, linguistics, Nordic languages and Saami. There are also plans to create an international advisory group. At the present moment the Center is in a phase of build-up. The resources of the fully developed Center will have a staff consisting of a director, a research and administrative assistant, an assistant (part-time) and a secretary (part-time). A considerable part of the budget will be flexible, to be used for guest-scholars, scholarships, material etc., they constitute an important basis for achieving the goals set forth. The budget for the present fiscal year (1984/85) amounts to 460,000 Skr.

ACTIVITIES

A large part of our efforts thus far have been dedicated to establishing international contacts. Representatives of the Center have visited the Scott Polar Research Institute and several northern institutes in North America. We also have had the opportunity to discuss with representatives of the Association of Canadian Universities for Northern Studies, co-operation between the University of Umea and their member universities. In the future we will act for increased contacts with Soviet universities and research institutes.

In accordance with our aims our first seminar was held with representatives of Saami research and museums. We have also established contacts with the Nordic Saami Institute in Kautokeino, Norway. Good conditions for co-operation exist and the National Union of Swedish Saamis has their national headquarters in Umea and our initiatives this far have been positively met.

Through the Center the University has begun co-operation with the State Ethnographical Museum in Stockholm and Vasterbotten Provincial Museum in Umea. The Ethnographical Museum has put all of its arctic material at the disposition of the University. Nordenskiold's Vega collection, the Pfaff collection from Greenland and the F.R. Martin collection from Siberia shall be deposited in Vasterbotten Museum where they can be used by the University for educational purposes and for research. As time passes these collections can be exchanged for others from the rich material in the Ethnographical Museum.

Vasterbotten Museum has recently opened a permanent exhibition about th Chukchee with material from the Vega collection. The Swedish Ski Museum forms a part of the museum with an exhibition of skis from 2,500 B.C. to the present. The

Center will also co-operate with other museums, as the Fjall- and Saami Museum in Jokkmokk, the Silver Museum in Arjeplog, Skelleftea Museum and Norrbotten Provincial Museum in Lulea.

In its first year of existence the Center has sponsored or supported a number of project proposals including, "Linguistic variation and similarity on the rivers Tornealv - Kalixalv in Norrbotten". (An analysis of Finnish, Swedish, Saami and Upper Kalix dialect), "The agreement between Sweden and Norway regarding the rights of the Saami to grazing lands - the background, resources and consequences". (Nordic Saami Institute, Kautokeino, Norway and Department of Modern History, University of Gothenburg). Using the research resources of the staff the Centre will start a project about seal hunting cultures on the Gulf of Bothnia in a circumpolar perspective.

Excellent living conditions for guest scholars exist at the University through an international housing center at **Lars Fargares gard**, a renovated 18th century house in the museum area. During the spring archaeologist William Fitzhugh from Smithsonian Institution has visited us as a guest scholar and in the fall anthropologist R. Williamsson from Saskatoon will start a sabbatical year in Umea. A series of lectures has been held during the year, both by guest lecturers and scholars of the University, treating among other things arctic religion, maritime cultural forms in Labrador and Alaska, Saami archaeology and Saami history.

LIBRARY RESOURCES AND PUBLICATIONS

The University Library contains about 450,000 volumes. It is one of seven Legal Deposit Libraries in Sweden. Being a new library there is a certain lack of older literature compensated for by the free-for-the-user borrowing from libraries in all the Nordic countries. The older collections are continuously supplemented through donations and purchases. No special collection of Northern material exists. Through the aid of the Center there have recently been additions of the latest Northern literature.

It is the policy of the University Library to discourage large departmental libraries. The Center understands and fully agrees with that policy. The Center will only have a smaller reference library at its disposition, it will contain the most important northern journals as well as general and special works of reference for the North. In these matters we have received valuable advice from the librarian of the Scott Polar Research Institute, Mr. Clive Holland.

Important segments of the research done in Sweden, especially in the field of the arts have never been published in any other language than Swedish. Within arctic cultural research it is of utmost importance that the results of research will be available to the international community of scholars. To facilitate this the Center will start publishing an occasional journal in English. It will, among other things, contain syntheses of dissertations written in Swedish. The syntheses will be more extensive than mere summaries and will be written by the dissertation authors themselves. We are supposing that the bulk of the journal's material will be furnished by scholars from Umea, but all interested parties are invited to contribute. The first issue is under preparation and will contain a number of articles about Saami culture and history.

A lot written about arctic culture research is in Finnish and Russian. The Center will devote part of its efforts to translations from these languages. The actual extent and the selection of material will depend on the needs of operating research projects. A proposed project in co-operation with the Department of Literature is an anthology of literature from northern Fennoscandia which will reflect the life of the farmers and fishermen, the settlers and the Saami of the North. The anthology will be published in English.

The Center has a well founded interest in a good supply of literature within its scope of interest and will continuously cover new literature and promote its acquisition by the University Library. The Center has supported a project for "A handbook of historical sources for northern Fennoscandia" by Finnmark District College, Alta, Norway. The investigation of a future information system about northern Fennoscandia started by the City Library of Rovaniemi and the Research Society of Lapland, Finland, is of great importance to the Center.

CONCLUSION

The Center for Arctic Cultural Research will be an important contribution to the furtherance and development of a northern perspective in humanistic research, not only in Sweden but in all the Nordic countries. The Center's spring board will obviously be northern Fennoscandian conditions. The availability of the ethnographic and archaeological collections in Umea and the Center's interdisciplinary structure nevertheless create an excellent environment for addressing questions of universal importance.

Swedish interest in arctic and circumpolar research has a long history. Not being a maritime and world power, however, the emphasis of even the early expeditions was more scientific than nationalistic.

The establishment of the Center is an effort to continue in this tradition and to strengthen international ties in regions which are being increasingly exploited in geopolitical, economic, environmental and, not least, human terms.

MAPS AT THE BOREAL LIBRARY

G.A. (Nita) Cooke and Robin Minion
Boreal Institute for Northern Studies

The Boreal Institute does not have a very large map collection. It is small, mainly thematic. It is non-circulating and is just there for the use of people who come in to use the library. There is an excellent map library on the University of Alberta's campus which loans maps and has a very comprehensive collection, so it was felt that there was no reason to collect a large selection of maps. So, there were these maps, which were in drawers, generally arranged by area--Arctic, Canada, Alaska, etc., but there was no good way for knowing what maps were owned or for giving access to them. We had thought of doing a co-ordinate index giving scale, country, etc. but had never actually set one up.

We have a very good computing system available to us at the University of Alberta. We can print out 132 columns of a line file, which can be divided into fixed fields. We had done this for our orders and it was working very successfully. We had also tried the same concept for a circulation control system which worked excellently, except that it took us twice as long as the manual system, because we had to enter the data in, so we had to abandon that. The thought was that maybe we could apply this idea to the map collection on the same principle of fixed column fields for certain categories, but we didn't have time to do it. The other thing that we have going for us, is that we are on a campus where there is a Faculty of Library Science and the students have to do a major project in order to graduate. So I have a list of major projects over at the Faculty of Library Science and sooner or later a student is interested. A student, whose initial degree was in Geography, was interested enough to try out our ideas.

The map index is based on a linefile maintained on the University of Alberta's Amdahl computer. Each line in the database file constitutes one entry, i.e. one line contains all the information for one map. A line contains 132 characters, which are divided into eight fixed fields with a blank space between the fields to permit easy reading of the file. 132 characters is the maximum number of characters which will print on one line of a computer printout. The fixed fields are (see Figure 1):

Columns 1-6: Drawer number (Drawer and map number which indicates the physical location of each map within the collection)

Columns 8-20: Area (Country, province or state, etc. that the map describes)

Columns 21-33: Region (Specific area covered, eg. the District of Franklin, N.W.T. Also indicates a second area if the map covers two areas, e.g. Yukon and Alaska)

Columns 35-79: Title (If the map is untitled, a descriptive title is created. This field is also used for other descriptive information, such as language if other than English or edition)

Columns 81-85: Scale (Scale is entered in thousands, e.g. 250 indicates a scale of 1:250,000)

Columns 87-96: Issuing body (Abbreviated. List of abbreviations used are contained in the datafile MAPCODE) (see Appendix A)

Columns 97-101: Date (Date of publication as given on map.)

Columns 103-132: Subject (Short general description of the subject of the map, e.g. topographic, political. List of terms used are contained in the datafile MAPTHES) (see Appendix B)

Each map is entered individually except for large series with their own indexes, such as those published by the Geological Survey of Canada. These series are entered as a series, with a single entry for the index sheet.

After the data is entered, the linefile is sorted by the column ranges of the fields and listings are produced. It is possible to sort sequentially on two or more fields. Thus, it is possible to produce a shelf list of maps held by the Boreal Institute Library by sorting by draw number. It is also possible to find the oldest map on the Yukon by sorting by area and date. (see Figure 2.)

For our purposes, this type of index works well; it is cheap, simple and provides us with multiple access points. One drawback is that it does not place the sort field at the front of the line of the printout. The data contained in each line always remains in the order in which it was entered. This can make the listings difficult to read. However, we solved this problem by running a line beside the sorted field with a red felt pen, thus highlighting the field.

The student's full report* is available upon request.

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*Seale, Linda N. 1983. An automated printed index for the map collection of the Boreal Institute for Northern Studies Library University of Alberta. A non-thesis project submitted to the Faculty of Library Science in partial fulfillment of the requirements for the degree of Master of Library Science.

Figure 1

FIXED FIELDS

	Drawer Number	Area	Region	Title	Scale	Issuing Body	Date	Subject
1	01-000	ALASKA		INDEX TO MAPS OF ALASKA 1:250000 TOPOGRAPHIC	3750	USGS	1961	TOPOGRAPHIC
2	01-000B	ALASKA		INDEX TO MAPS OF ALASKA 1:250000 TOPOGRAPHIC	3750	USGS	1975	TOPOGRAPHIC
3	01-001	ALASKA		RECONNAISSANCE TOPOGRAPHIC SERIES ALASKA	250	USGS	43-59	SEE INDEX 01-000
4	01-164	ALASKA		ALASKA STATE ATLAS PLATE 18 2 COPIES	41184	NAT GEOG	1959	TOPOGRAPHIC
5	01-165	ALASKA		ALASKA	3000	NAT GEOG	1965	TOPOGRAPHIC
6	01-166	ALASKA		KROLLS MAP OF ALASKA	2500	ALASKA	1967	ALASKA HIGHWAY
7	01-167	ALASKA	RUSSIA	NW AMERICA SHOWING TERRITORY CEDED BY RUSSIA	12672	USCS	1872	POLITICAL
8	01-168	ALASKA		ELECTORAL DISTRICTS CITIES TOWNS AND VILLAGES	3801	USBC	1960	POLITICAL
9	01-169	ALASKA	TANA	RECONNAISSANCE GEOLOGIC MAP TANA QUADRANGLE	250	USGS	1970	GEOLOGY
10	01-170	ALASKA		PERMAFROST MAP OF ALASKA	2500	USGS	1965	PERMAFROST
11	01-171	ALASKA	TONGASS	TONGASS NATIONAL FOREST	887	USDAFFS	N.D.	RECREATION
12	01-172	ALASKA		NATIVE PEOPLES AND LANGUAGES OF ALASKA		UAK	1974	LANGUAGES
13	01-174	ALASKA	MCKINLEY	MT MCKINLEY	50	MSB	1959?	TOPOGRAPHIC
14	01-175	ALASKA		NATIVE CLAIMS SETTLEMENT ACT MAP E PL92-203	2500	USGS	1973	LAND CLAIMS
15	01-176	ALASKA		NEW NATIONAL PARK WILDLIFE REFUGE AND WILD		AC	N.D.	NATIONAL PARKS
16	01-177	ALASKA		STATE SELECTIONS ON AVAILABLE LANDS	2500	FDNM	1977	SETTLEMENT
17	01-178	ALASKA	NORTHERN	PRELIMINARY GEOLOGIC MAP OF N ALASKA MF 789	1000	USGS	1976	GEOLOGY
18	01-179	ALASKA	SOUTHEAST	PRELIMINARY GEOLOGIC MAP OF SE ALASKA MF 673	1000	USGS	1975	GEOLOGY
19	01-180	ALASKA	SOUTHEAST	PRELIMINARY GEOLOGIC MAP OF SE QUAD MF 612	1000	USGS	1974	GEOLOGY
20	01-181	ALASKA	SOUTHWEST	PRELIMINARY GEOLOGIC MAP OF SW QUAD MF 611	1000	USGS	1974	GEOLOGY
21	01-182	ALASKA		NATIVE CLAIMS SETTLEMENT ACT MAP E PL92-203	2500	USGS	1973	LAND CLAIMS
22	01-183	ALASKA	BEAUFORT SEA	COASTAL BIOPHYSICAL BOUNDARIES BEAUFORT SEA	250	SAFG	1976	ECOLOGY
23	01-184	ALASKA	CANNING RIVER	COASTAL BIOPHYSICAL BOUNDARIES BEAUFORT SEA	250	SAFG	1976	ECOLOGY
24	01-185	ALASKA	PT BARROW	COASTAL BIOPHYSICAL BOUNDARIES BEAUFORT SEA	250	SAFG	1976	ECOLOGY
25	01-186	ALASKA	DEMARCATION	COASTAL SEASONAL PROCESSES BEAUFORT SEA	250	SAFG	1976?	ECOLOGY
26	01-187	ALASKA	CANNING RIVER	COASTAL SEASONAL PROCESSES BEAUFORT SEA	250	SAFG	1976?	ECOLOGY
27	01-188	ALASKA	BEAUFORT SEA	COASTAL SEASONAL PROCESSES BEAUFORT SEA	250	SAFG	1976?	ECOLOGY
28	01-189	ALASKA	BEAUFORT SEA	BEAUFORT SEA SUMMER CONDITIONS BIRDS	250	SAFG	1976?	ECOLOGY
29	01-190	ALASKA	BEAUFORT SEA	BEAUFORT SEA SUMMER CONDITIONS VEGETATION	250	SAFG	1976?	ECOLOGY
30	01-191	ALASKA	BEAUFORT SEA	BEAUFORT SEA SUMMER CONDITIONS BIRDS	250	SAFG	1976?	ECOLOGY
31	01-192	ALASKA		KROLLS MAP OF ALASKA	250	KROLL	N.D.	ALASKA HIGHWAY
32	01-193	ALASKA		FEDERAL WITHDRAWALS AND LAND CONVEYED TO THE		FDNM	1979	SETTLEMENT
33	01-194	ALASKA		WORLD AERONAUTICAL CHART C9 ALASKA 2 COPIES	1000	EMR	1971	TOPOGRAPHIC
34	01-195	ALASKA	BC	ISKUT RIVER BC-ALASKA GEOLOGICAL ATLAS 1418A	1000	EMR	1979	GEOLOGY
35	01-196	ALASKA	NORTHERN	DISTRIBUTION OF COPPER LEAD ZINC MF 614	NUMSC	USGS	1974	MINERALS
36	01-197	ALASKA	BEAUFORT SEA	INNER SHELF CIRCULATION PATTERNS MF 1125	NUMSC	USGS	1979	CURRENTS
37	01-198	ALASKA	NORTH COAST	SEISMIC PROFILE TRACKLINES 1970-72 5 SHEETS	NUMSC	USGS	1972	SEISMOLOGY
38	01-199	ALASKA	PRUDHOE BAY	PRELIMINARY INTERPRETATION OF SEISMIC 4 MAPS	NUMSC	USGS	1972	SEISMOLOGY
39	01-200	ALASKA	YUKON	NATURAL GAS TRANSPORTATION SYSTEM	1200	NAPC	1981?	PIPELINES
40	01-201	ALASKA		ATLAS BOUNDARY ARCTIC OCEAN-MT ST ELIAS	NUMSC	IBC	1918	LAND CLAIMS
41	01-202	ALASKA	PACIFIC OCEAN	ATLAS SEA & SWELL CHARTS OF NE PACIFIC OCEAN		USHO	1950	HYDROGRAPHY
42	01-203	ALASKA	PACIFIC OCEAN	ATLAS SURFACE CURRENTS OF NW PACIFIC OCEAN		USHO	1953	HYDROGRAPHY
43	01-204	ALASKA	PACIFIC OCEAN	ATLAS SURFACE CURRENTS OF NE PACIFIC OCEAN		USHO	1947	HYDROGRAPHY
44	01-205	ALASKA	FAIRBANKS	ARSENIC,NITRATE,IRON + HARDNESS IN GROUND WAT		USGS	1978	GEOLOGY
45	01-206	ALASKA		ALASKA HIGHWAY GAS PIPELINE SUPP. OILWEEK MAG		OW	1981	OIL AND GAS
46	01-207	ALASKA	COASTAL PLAIN	VEGETATION & LAND COVER ARCTIC NATIONAL WILDL	250	USGS	1982	VEGETATION
47	01-208	ALASKA		KUSKOKWIM-ILIAMNA FIRE MANAGEMENT PLANNING DR		USBLM	1983	FOREST FIRE
48	01-209	ALASKA		BASE MAP SERIES	1000	AEIDC	1978	SEF 01-218
49	02-000	ALBERTA		ALBERTA DISPLAY 2 SHEETS 2 COPIES	760	MTSC	1962	POLITICAL

Figure 2

DATE/AREA SORT

* Indicates the oldest map on the Yukon.

7	02-072	ALBERTA	EDMONTON	EDMONTON DISTRICT N SHEET CROWN AND PATENTED	63		N.D.	OIL AND GAS
8	02-070	ALBERTA		OIL AND GAS FIELDS AND MAIN PIPELINES ALBERTA	1013	ADMM	N.D.	OIL AND GAS
9	02-024	ALBERTA	NORTHERN	OIL SANDS MAP DETAILING LEASES PLANT LOCATION		OW	N.D.	OIL SANDS
10	04-098	ARCTIC	ARCTIC OCEAN	PERSPECTIVE MAP OF ARCTIC OCEAN BASIN	30000		N.D.	BATHYMETRY
11	04-069	ARCTIC		POLAR PROJECTION OF NORTHERN HEMISPHERE	38000		N.D.	OUTLINE
12	04-101	ARCTIC		NORTH POLAR REGIONS WALL DISPLAY	6000	GKAG	N.D.	TOPOGRAPHIC
13	16-131	CANADA	PRAIRIES	TREATY AREAS 8 AND 11			N.D.	NATIVE PEOPLES
14	05-037	CANADA	ALBERTA	PEACE RIVER DISTRICT G-1 GENERAL MAP	1013		N.D.	POLITICAL
15	16-132	CANADA		ENVIRONMENTALLY SIGNIFICANT AREAS IN CANADA			N.D.	ECOLOGY
16	05-036	CANADA	MANITOBA	CHURCHILL R BASIN ENVIRONMENTAL IMPACT STUDY			N.D.	ECOLOGY
17	05-069	CANADA		FOREST REGIONS OF CANADA	2000		N.D.	FORESTRY
18	16-097	CANADA	BC PEACE R	HALFWAY RIVER AREA BC 94 B/NE REPORT 18	125	BCME	N.D.	SOILS
19	16-098	CANADA	BC PEACE R	NIG CK BIG ARROW CK AREA 94 H/S 1/2 REPORT 19	125	BCME	N.D.	SOILS
20	16-099	CANADA	BC PEACE R	ROSE PRAIRIE BLUEBERRY R 94 A/N/1/2 REPORT 17	125	BCME	N.D.	SOILS
21	16-087	CANADA		CANADAS FIRST PEOPLE		DHAA	N.D.	NATIVE PEOPLES
22	05-042	CANADA	ALBERTA NWT	NORTHERN ROADS		ECC	N.D.	HIGHWAYS
23	05-058	CANADA		PERMIT REGIONS CANADA	25344	EMR	N.D.	OIL AND GAS
24	05-062	CANADA	YUKON	LOUCHEUX MAP OF OLD CROW COUNTRY	250	EMR	N.D.	PLACE NAMES
25	20-007	CARIBBEAN	C AMERICA	NEW WORLD 1600 PICTORIAL TEXT		AH	N.D.	HISTORICAL
26	18-087	NEW BRUNSW	QUEBEC GASPE	STRIATION FROM LOCAL GLACIERS PLEISTOCENE 559	2534	GSC	N.D.	GLACIERS
27	18-054	NOVA SCOTIA	NEW BRUNSWICK	ST LWARENCE SURMERGED COASTAL PLAIN 1478		GSC	N.D.	GLACIERS
28	13-033	NWT		NWT COUNCIL CONSTITUENCIES			N.D.	POLITICAL
29	13-050	NWT	MACKENZIE	INUVIK NWT PERSPECTIVE SKETCH FROM EAST		MYIP	N.D.	TOWN PLANS
30	18-004	QUEBEC	SOUTHERN	GEOLOGIE DU SUD DE LA PQ PHOTOCOPIES 4 COPIES	3168		N.D.	GEOLOGY
31	18-096	QUEBEC		COOPERATIVES DU NOUVEAU-QUEBEC INUKTITUK		GQ	N.D.	COOPERATIVES
32	18-041	QUEBEC	MONTREAL	ARTESIAN WELLS MONTREAL AND VICINITY NO 1490	2	GSC	N.D.	HYDROGRAPHY
33	13-057	YUKON		SUITABILITY INTERPRETATION WATSON LAKE YT	63		N.D.	LAND USE
34	16-127	CANADA		AMERICA NORTH AS IN MONOGRAPH BY S PURCHAS		ACML	1625	HISTORICAL
35	04-093	ARCTIC	GREENLAND	NORTH POLE AND PARTS ADJOINING		ACML	1680	TOPOGRAPHIC
36	16-125	CANADA		CENTRAL AND W CANADA AS PRESENTED BY PETER PO		ACML	1785	HISTORICAL
37	13-094	NWT	COPPERMINE R	MR HEARNES TRACKS IN HIS TWO JOURNIES FOR		ACML	1795	EXPLORATION
38	16-126	CANADA		AMERICA EXHIBITING MACKENZIES TRACK		ACML	1801	HISTORICAL
39	14-130	NORWAY	NORGE	LANDKART NORGES GEOGRAFISKE OPPMALING NORW	200	NGO	1827+	SEE INDEX 14-167A
40	01-167	ALASKA	RUSSIA	NW AMERICA SHOWING TERRITORY CEDED BY RUSSIA	12672	USCS	1872	POLITICAL
41	18-089	NEW BRUNSW	QUEENS KINGS	NEW BRUNSWICK NO 1 TEXT	253	GSC	1880	GEOLOGY
42	18-090	NEW BRUNSW	GLOUCESTER CO	NEW BRUNSWICK NO 6 SHIPPEGAN ISLAND	253	GSC	1882	GEOLOGY
43	20-021	CANADA	W CANADA	GEOLOGY OF W CANADA CPR ROUTE W SHEET			18847	GEOLOGY
44	18-063	NOVA SCOTIA	C BRETON IS	ISLAND OF CAPE BRETON NO 5 INDEX TO REPORTS	63	GSC	1884	GEOLOGY
45	18-065	NOVA SCOTIA	C BRETON IS	ISLAND OF CAPE BRETON NO 24 INDEX TO REPORTS	63	GSC	1884	GEOLOGY
46	18-064	NOVA SCOTIA	C BRETON IS	ISLAND OF CAPE BRETON NO 14 INDEX TO REPORTS	63	GSC	1884	GEOLOGY
47	18-006	QUEBEC	GASPE PENIN	PROVINCE OF QUEBEC NO 3 BONAVENTURE COUNTY	253	GSC	1884	GEOLOGY
48	02-076	ALBERTA	ROCKIES	ROCKY MTNS BETWEEN LATITUDES 49 AND 51-31	36	GNHSC	1886	GEOLOGY
49	18-067	NOVA SCOTIA	PICTOU CO	ANTIGONISH PICTOU COS NO 35 INDEX TO REPORTS	63	GSC	1893	GEOLOGY
50	18-066	NOVA SCOTIA	GUYSBOROUGH	GUYSBOROUGH CO NO 29 INDEX TO REPORTS	63	GSC	1893	GEOLOGY
51	14-006	NORWAY	NORGE	LANDKART NORGES GEOGRAFISKE OPPMALING	100	NGO	1895+	SEE INDEX 14-129A
52	18-068	NOVA SCOTIA	HALIFAX CO	GUYSBOROUGH HALIFAX COS SHEET 37	63	GSC	1895	GEOLOGY
53	18-001	QUEBEC	LABRADOR	LABRADOR PENINSULA SE SHEET NO 586	1584	GSC	1896	GEOLOGY
54	18-043	QUEBEC	LABRADOR	LABRADOR PENINSULA SW SHEET 58	1584	GSC	1896	GEOLOGY
55	18-045	QUEBEC	LABRADOR	LABRADOR PENINSULA NE SHEET 58	1584	GSC	1896	GEOLOGY
56	18-044	QUEBEC	LABRADOR	LABRADOR PENINSULA NW SHEET 58	1584	GSC	1896	GEOLOGY
57	18-005	QUEBEC	SOUTHERN	JOLIETTE ARGENTEUIL TERRESBONNE MONTCALM 590	253	GSC	1897	GEOLOGY
58	*13-022	YUKON	BC	TRAILS OF 98 LA RUEE VERS L'OR REPRODUCTION		PAC	1897	KLONDIKE GOLDRUSH
59	13-128	YUKON	BC ALASKA	YUKON DISTRICT NWT ADJACENT N PART BC NO 277	506	GSC	1898	GEOLOGY
60	18-086	NEW BRUNSW		PRINCIPAL MINERAL OCCURENCES NB NO 675	633	GSC	1899	MINERALS

Appendix A

MAPCODE

1	AC	ALASKA COALITION
2	ACML	ASSOCIATION OF CANADIAN MAP LIBRARIES
3	ADA	ALBERTA DEPARTMENT OF AGRICULTURE
4	ADH	ALBERTA DEPARTMENT OF HIGHWAYS
5	ADMM	ALBERTA DEPARTMENT OF MINES AND MINERALS
6	AEIDC	ARCTIC ENVIRONMENTAL INFORMATION AND DATA CENTER
7	AENR	ALBERTA ENERGY AND NATURAL RESOURCES
8	AES	AMERICAN ETHNOLOGICAL SOCIETY
9	AESC	ATMOSPHERIC ENVIRONMENT SERVICE CANADA
10	AGS	AMERICAN GEOGRAPHICAL SOCIETY
11	AH	AMERICAN HERITAGE MAGAZINE
12	AINA	ARCTIC INSTITUTE OF NORTH AMERICA
13	ALF	ALBERTA DEPARTMENT OF LANDS AND FORESTS
14	ANDD	ARCTIC AND NORTHERN DEVELOPMENT DIGEST
15	AOSERP	ALBERTA OIL SANDS ENVIRONMENTAL RESEARCH PROGRAM
16	ARC	ALBERTA RESEARCH COUNCIL
17	ASS	ALBERTA SOIL SURVEYS
18	BCME	BRITISH COLUMBIA MINISTRY OF ENVIRONMENT
19	BCMLPH	BRITISH COLUMBIA MINISTRY OF LANDS PARKS AND HOUSING
20	BCYCM	BRITISH COLUMBIA YUKON CHAMBER OF MINES
21	BEA	BELGIAN EXPEDITION TO THE ANTARCTIC THIRD
22	BM	BANK OF MONTREAL
23	CAGS	CANADIAN ARCTIC GAS STUDY LTD
24	CDA	CANADA DEPARTMENT OF AGRICULTURE
25	CDT	CANADA DEPARTMENT OF TRANSPORT
26	CFR	CULTURAL FUND REYKJAVIK
27	CGJ	CANADIAN GEOGRAPHICAL JOURNAL
28	CGTB	CANADIAN GOVERNMENT TRAVEL BUREAU
29	CHS	CANADIAN HYDROGRAPHIC SERVICE
30	CIBC	CANADIAN IMPERIAL BANK OF COMMERCE
31	CMR	CANADA DEPARTMENT OF MINES AND RESOURCES
32	CPE	CAMPBELL PRINTING EDMONTON
33	CWS	CANADIAN WILDLIFE SERVICE
34	CYK	CITY OF YELLOWKNIFE NWT
35	DG	DENOYER GEPPERT
36	DHAA	D. HORWOOD ASSOCIATED ADVERTISING
37	DIAND	DEPARTMENT OF INDIAN AND NORTHERN AFFAIRS
38	DIC	DEPARTMENT OF THE INTERIOR CANADA
39	DMC	DEPARTMENT OF MINES CANADA
40	DMNS	DEPARTMENT OF MINES NOVA SCOTIA
41	DNANR	DEPT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
42	DND	DEPARTMENT OF NATIONAL DEFENCE CANADA
43	DPWYT	DEPT OF PUBLIC WORKS YUKON TERRITORY
44	DRUM	DRUM NEWSPAPER INUVIK NWT
45	EC	ENVIRONMENT CANADA
46	ECC	EDMONTON CHAMBER OF COMMERCE
47	EMR	DEPARTMENT OF ENERGY MINES AND RESOURCES CANADA
48	FDNM	FAIRBANKS DAILY NEWS-MINER
49	FISAG	FIRST INTERNATIONAL SYMPOSIUM ON ARCTIC GEOLOGY
50	FPLSY	FOOTHILLS PIPELINES SOUTH YUKON
51	GA	GOVERNMENT OF ALBERTA
52	GAC	GEOLOGICAL ASSOCIATION OF CANADA
53	GBO	GEOGRAPHICAL BUREAU OTTAWA
54	GGS	GREENLAND GEOLOGICAL SURVEY
55	GIC	GEODETISK INSTITUT COPENHAGEN
56	GKAG	GEOGRAPHISCH KARTOGRAPHISCHE ANSTALT GOTHA
57	GM	GENERAL MOTORS
58	GNHSC	GEOLOGICAL AND NATURAL HISTORY SOCIETY OF CANADA
59	GQ	GOUVERNEMENT DU QUEBEC
60	GSA	GEOLOGICAL SOCIETY OF AMERICA

61	GSC	GEOLOGICAL SURVEY OF CANADA
62	HDAUK	HYDROGRAPHIC DEPT. ADMIRALTY UK
63	HPR	HUNGARIAN PEOPLE'S REPUBLIC
64	IBC	INTERNATIONAL BOUNDARY COMMISSION
65	IHO	INTERNATIONAL HYDROGRAPHIC ORGANIZATION
66	INSUS	INSTITUTE OF NORTHERN STUDIES U OF SASKATCHEWAN
67	IR	ICELAND REVIEW
68	ISD	ICELANDIC SURVEY DEPARTMENT
69	IWD	INLAND WATERS DIRECTORATE CANADA
70	JARE	JAPANESE ANTARCTIC RESEARCH EXPEDITION
71	JBS	JOHN BARTHOLOMEW AND SON
72	JCS	J C SPROULE AND ASSOCIATES
73	JCSC	J C SPROULE CALGARY
74	JGTFO	JOHAN GRUNDT TANUM FORLAG OSLO
75	KROLL	KROLL MAP COMPANY SEATTLE WASHINGTON
76	KSRD	KITIMAT-STIKINE REGIONAL DISTRICT
77	KTH	KARTOGRAFINEN TOIMISTO HELSINKI
78	MLH	MACLEAN HUNTER
79	MN	MOSCOW NEWS
80	MOUK	METEOROLOGICAL OFFICE UNITED KINGDOM
81	MSB	MUSEUM OF SCIENCE BOSTON
82	MTSC	DEPARTMENT OF MINES AND TECHNICAL SURVEYS CANADA
83	MYIP	M YIP INUVIK NWT
84	NAC	NATIONAL ATLAS OF CANADA
85	NAPC	NORTHWEST ALASKAN PIPELINE COMPANY
86	NAT GEOG	NATIONAL GEOGRAPHIC SOCIETY
87	NGI	NORGES GEOGRAFISKE INSTITUTT
88	NGO	NORGES GEOGRAFISKE OPPMALING
89	NGU	NORGES GEOLOGISKE UNDERSOKELSE
90	NHW	NATIONAL HEALTH AND WELFARE OTTAWA
91	NIPRT	NATIONAL INSTITUTE OF POLAR RESEARCH TOKYO
92	NM	NORTHERN MINER
93	NPI	NORGES POLARINSTITUTT
94	NSC	NORTHWEST SURVEY CORPORATION
95	NTA	NORWAY TRAVEL ASSOCIATION
96	NTAD	NATIONAL TRAVEL ASSOCIATION DENMARK
97	ODED	ONTARIO DEPARTMENT OF ECONOMICS AND DEVELOPMENT
98	OGCBA	OIL AND GAS CONSERVATION BOARD ALBERTA
99	OGJ	OIL AND GAS JOURNAL
100	OW	OILWEEK MAGAZINE
101	PAC	PUBLIC ARCHIVES OF CANADA
102	PAO	PAN ARCTIC OILS
103	PC	PARKS CANADA
104	PWC	PUBLIC WORKS CANADA
105	RBC	ROYAL BANK OF CANADA
106	RGS	ROYAL GEOGRAPHICAL SOCIETY
107	SAFG	STATE OF ALASKA DEPARTMENT OF FISH AND GAME
108	SGJC	SASKATCHEWAN GOLDEN JUBILEE COMMITTEE
109	SHT	SASKATCHEWAN HIGHWAYS AND TRANSPORTATION
110	SMB	SURVEYS AND MAPPING BRANCH CANADA
111	SPRI	SCOTT POLAR RESEARCH INSTITUTE
112	STTA	SWEDISH TOURIST TRAFFIC ASSOCIATION
113	TAY	TRAVEL ARCTIC YELLOWKNIFE NWT
114	TBC	TELBERG BOOK CORPORATION NEW YORK
115	UAK	UNIVERSITY OF ALASKA
116	UBC	UNIVERSITY OF BRITISH COLUMBIA
117	UC	UNIVERSITY OF CHICAGO
118	UCAL	UNIVERSITY OF CALIFORNIA
119	UIFA	UNITED INDIAN FEDERATION OF AMERICA
120	USAF	UNITED STATES AIRFORCE

121	USBC	UNITED STATES BUREAU OF THE CENSUS
122	USBLM	UNITED STATES BUREAU OF LAND MANAGEMENT
123	USCIA	UNITED STATES CENTRAL INTELLIGENCE AGENCY
124	USCS	UNITED STATES COASTAL SURVEY?
125	USDAFS	UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE
126	USGS	UNITED STATES GEOLOGICAL SURVEY
127	USHO	UNITED STATES HYDROGRAPHIC OFFICE
128	USINS	UNIVERSITY SASKATOON INSTITUTE OF NORTHERN STUDIES
129	USNHO	UNITED STATES NAVY HYDROGRAPHIC OFFICE
130	USSRMG	USSR MINISTRY OF GEOLOGY
131	USSRMGC	USSR MINISTRY OF GEOLOGY AND CARTOGRAPHY
132	WP	WESTERN PRODUCER

Appendix B

MAPTHES

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      1     AGRICULTURE
      2     ALASKA HIGHWAY
      3     ASTRONOMY
      4     BATHYMETRY
      5     CLIMATE
      6     COMMUNICATIONS
      7     COOPERATIVES
      8     CURRENTS
      9     DEVELOPMENT
     10     ECHO SOUNDING
     11     ECOLOGY
     12     ELECTRICITY
     13     EXPLORATION
     14     FOREST FIRES
     15     FORESTRY
     16     GEOLOGY
     17     GEOMORPHOLOGY
     18     GLACIERS
     19     GRAVITY
     20     HIGHWAYS
     21     HISTORICAL
     22     HUDSON'S BAY CO
     23     HYDROGRAPHY
     24     INDEX
     25     KLONDIKE GOLDRUSH
     26     LAND CLAIMS
     27     LAND USE
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     39     OIL AND GAS
     40     OIL SANDS
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     42     PARKS
     43     PERMAFROST
     44     PIPELINES
     45     PLACE NAMES
     46     POLITICAL
     47     POPULATION
     48     RAILWAYS
     49     RECREATION
     50     SEA ICE
     51     SEISMOLOGY
     52     SETTLEMENT
     53     SOILS
     54     TOPOGRAPHIC
     55     TOWN PLANS
     56     TRANSPORT
     57     URANIUM
     58     VEGETATION
     59     WILDLIFE
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University of Alberta

ALASKA'S ORAL HISTORY; NUGGETS, FINE, AND TAILINGS

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July 1984

PREFACE

This Colloquy and its theme are particularly significant to me due to experience in 1982 coordinating the first Alaskan social impact assessment conference entitled "The Alaska Symposium on the Social, Economic, and Cultural Impacts of Natural Resource Development." During that Symposium the scarcity of social science information on how Northern resource development affects human populations became clearly evident. This Colloquy provides an opportunity for professionals in the information access, library, and archival areas to discuss such needs and devise ways of meeting them.

For those who wish a copy of the Symposium proceedings edited by Sally Yarie, a limited number are yet available upon request to the Department of Conferences and Institutes, University of Alaska, Fairbanks, AK 99701. It is also listed through the Washington Library Network.

INTRODUCTION

"Northern Resources: Their Development from an Information Perspective" is an especially appropriate framework from which to review Alaska oral history collections. Information of the North in libraries and depositories is a resource under varying states of development; as fishermen harvest the seas, as hunters stalk the land and ice, as satellites map the landscape for mineral potential, scholars and researchers are mining the libraries and archives of the North for information of a different, but equally significant sort.

The earth's Northern regions are increasingly viewed as bulging treasuries of natural resources awaiting distribution to other parts of the planet and as a way to create wealth not only through the sale of natural resources but the marketing of the Northlands' environment, people, and historical experiences through tourism. With these developments the value of human knowledge and environmental information of those polar regions increases as does the body of new information. And, if the lessons of resource development elsewhere are applicable to the North, our policy makers must learn from previous human experience and knowledge as well as the current scientific technocrats. Indeed, "Past is prologue."

Oral history is an especially appropriate method to obtain information from and about the earliest Northern inhabitants, many of whom transfer knowledge exclusively through the oral tradition. Oral tradition is information enhanced manyfold, and exemplified by the knowledge bearers called storytellers who participated as integral parts in the daily lives of many traditional people. Oral history conveys social and cultural values as people communicate and share more than mere information.

Once put to paper, many previously unwritten languages for which IBM fonts and dot matrix printers may now be configured, change. In the observation of Emily Ivanoff Brown, an Inupiat Elder to whom the 1982 Alaska Oral History Conference was dedicated: "You folks (non-Inupiats) take our language and put it on paper; that makes us lazy because now we don't have to remember." Indeed, the "oralness" of oral history should not be forgotten.

This presentation is the result of my part-time work during the past 6 months with the Oral History program of the University of Alaska's Rasmuson Library and particularly with the oral History Index (the Index). Although the current Index doesn't allow for a clean, statistical analysis because information about each entry is inconsistent, I will broadly outline some of the major collection types across the state and comment about this exciting and yet peculiar form of information known as "oral history," a discipline and a process especially appropriate to gathering and accessing information of and about the people, places, and events of the North.

The Alaska Oral History Index

Alaska's oral history has been compiled into a state-wide index by the University of Alaska, Fairbanks' "Program for the Preservation of Oral History and Traditions." Under the leadership of Dr. William Schneider of the "Alaska and Polar Regions Department" of the University's Rasmuson Library and with the financial support of the Alaska State Historical Commission the first cumulative index of known Alaskan oral collections was produced in 1982. This Index is one of the few such statewide compilations among all of the 50 states.

Currently the Index lists over 5,000 cross-referenced entries. The information for the index was solicited from individuals, organizations, and agencies then entered onto a "Famulus" computer documentation program as well as the "Alaskana" program. The better searching capabilities of the "Alaskana" program and its use as a standard for information access in Alaska libraries resulted in its use exclusively.

An accession sheet recorded the following categories of information: narrator--the person interviewed; interviewer; content of interview; date of interview; geographic region described; method of collection (cassette or reel to reel, etc.); location of tape deposit; accompanying materials (logs, transcripts, field notes, photos, etc.); release form; and, any use restrictions. The resulting 33-sheet microfiched Index was placed on deposit in 15 libraries across the state; upon request additional copies are available at cost.

Providing "keyword" cross-indexing proved to be useful for the user but a bane to the compiler. Control of proper name spellings, non-standard orthographies, minimal reference control on place names are examples of difficulties the key word compiler confronted. Alaska librarians are awaiting the completion of a state-wide "Alaskana" word list which will serve as a thesaurus for classification beyond that currently offered through the Library of Congress classification scheme. The "Alaskana" list will ensure compatibility of the oral history compiler's cross-indexing with other Northern data-bases.

The Index annotations of the tape contents were compiled largely from labels, short citations, and summaries supplied by sponsoring organizations or individual researchers. In some instances the information received on a tape or collection was incomplete or unclear, and the Index citations for these tapes reflected those difficulties. The predominance of tapes on deposit were with schools, local historical societies, and state agencies as well as the University of Alaska, Fairbanks, "Alaska and Polar Regions" collections of University generated materials or selected non-University collections deposited for curation.

The definition of "oral history" was held in abeyance during the initial development of the Index. As a result many diverse items are listed, including: media interviews and features produced initially for radio or TV; audio recordings of symposia, conferences, and public meetings; researchers' residuals; folklore recordings of stories and tales; linguist's word lists; and several exemplary oral histories befitting the definition of the Bancroft Library Regional Oral History Program's director, Willa Baum:

> a recording of a knowledgeable person, by questions and answers, about what he/she did or observed of an event or events or way of life of historical interest. The purpose is to preserve that account for users, both present but especially future users, and make it available for use. ("Sharing Alaska's Oral History," p. 39)

Not many of the interviews in the Index were actually planned with the future usefulness in mind; the interview tape alone was envisioned to have captured knowledge for eternity. It is doubtful that many of the taped interviews had been transcribed, reviewed by the narrator, then cleared for future use through a signed release. The interview tapes should have been logged (that is, indexed by elapsed time or foot counter) or transcribed. A review of a selected number of tapes deposited with the UAF "Alaska and Polar Regions Department" revealed few had been collected on cassettes secured with mechanical screws to allow the cassette case to be disassembled to untangle tape, nor had the protective notches been removed to prevent over-recording of the original material.

While archives like that at the UAF "Alaska and Polar Regions Department" provide a controlled environment for the storage of the interview tapes, seldom can any archive create the necessary logs, transcripts, and indexes which make the oral tapes accessible and useful to other users. (The processes of logging, transcribing, and indexing interviews may take from 5 to 10 times the time of the original interview.) However, such archival deposit of tapes ensures a backup should the original be destroyed by fire, flood, or magnetic fields, or even by inadvertant reuse of a seemingly "blank" tape.

In large measure, the use of small, dependable, inexpensive tape recorders and tapes has decentralized the process of recording history. As Naisbitt observed in MEGATRENDS (Warner Books, 1982), increasing technology and decentralization affect us in many ways, and the inexpensive tape recorder is a prime example. The technology has produced reliable, relatively simple-to-operate recorders, and with it less reliance on centralized authorities controlling its use. Now we in Alaska are adrift in a sea of tapes, collected by amateur and professional alike, but lacking a common methodology--the topic of the next paper by my colleague, Dr. William Schneider.

Lack of an accepted methodology is very evident in collected Alaskan materials. For some interviewers, seeming randomly captured information and chit-chat constituted oral history. For others, careful pre-interview preparation and post-interview follow-through were evident. Although most interviewers had some understanding of the need to archive tape, that understanding did not necessarily lead to a methodical analyses of machinery, tape stock, etc. Most seemed content just getting information on tape and then giving the tape to someone else for archiving.

Little could Allan Nevins at the University of Chicago in 1949 have realized the scale of oral history activity 35 years after he initiated the first systematic tape recording of significant individuals; he recognized then the need for a methodical way to organize oral history.

Alaska Oral History Collections

The following are selective glimpses into the diverse types of oral history collections:

*Alaska Historical Library

Tlingit Songs and Stories by Jimmie Marks and others; "Meet a Pioneer" KJNO radio interviews by Verne Metcalfe; the Trans-Alaska Oil Pipeline Impact Collection; the statewide Future Homemakers of America Bicentennial Project of student interviews of local personalities; and others.

*Alaska Native Language Center

The Center has systematically collected linguistic and folklore information on all Alaska Native languages. These tapes are used for linguistic work; as standardized orthographies developed for languages previously unwritten, the oral traditions of the Alaska Native languages are well represented. Much of the oral material has resulted in monographs, dictionaries, and in some cases, the first written literature of the language.

*Alaska Native Oral Literature Project

Alaska Natives culture bearers relating their stories, legends, songs, and dances of their home regions provided 368 citations.

*Alaska Women's Oral History Collection

Oral historian Maria Brooks collected interviews with Alaska pioneer women; additional interviews conducted by her students in an oral history class at the Anchorage Community College are included.

*Glacier Bay National Park: U.S. National Park Service

The biological and geological changes, homesteaders, historic exploration and mountain climbing are discussed in this collection of 14 tapes.

*Iditarod Tape Collection: U.S. Bureau of Land Management

The historic and now rediscovered "Iditarod Trail" used for the diphtheria serum run to Nome in 1925 is explored in interviews. Place names, the development of the trail, mushing dogs, gold mining, the diptheria serum run, and the roadhouses along the trail are all discussed.

*Ken Kastella Medical Interviews

Dr. Ken Kastella interviewed medical doctors who practiced during late territorial and early statehood times.

*KUAC-FM Chinook Series

This extensive radio feature series on the University of Alaska, Fairbanks public radio station provided extensive information about issues important to rural Alaska.

*Mt. McKinley National Park Collection:
U.S. National Park Service

Old time rangers, the Savage Camp Hotel, legislation, mountaineering, gold miners, the Stampede region, the Wilcox Expedition, the Alaska Road Commission and other subjects are covered in 8 citations.

*Pratt Museum Collection: Homer

The collections of this regional museum affiliated with a local history society typifies the holdings of similar regional musems and local societies--personal histories of local personalities, generally the first Caucasian settlers of the area collected by local historians and school students.

*Sea Ice Tapes: UA Geophysical Institute

Thirteen recordings with Inupiat Eskimos about their experiences with sea ice were gathered by research scientists. Topics included information on being stranded on the ice, ships getting stuck, traders, trips along the coast, sea ice conditions, and the Point Thompson Outer Continental Shelf Oil Lease Sale.

*The Southeast Alaska Salmon Fishery

Interviews of fishermen from Southeastern towns covered different types of fishing--handtrolling, power trolling, seining, halibut fishing, and cannery work in 54 interviews.

*Statehood Commission Oral History Collection

In 1980 the Alaska State Legislature created the Alaska Statehood Commission to analyze the relationship of the state of Alaska to the United States. As a part of the data collection for the reports of that Commission, oral histories were conducted with some of the early Statehood proponents and opponents.

*Susitna Feasibility Studies Oral History Program

Twenty four interviews on the subjects of air taxi operations, guiding, mining, the Matanuska Valley Colony, homesteading, wildlife art, trapping, roadhouses, and game biology were conducted as part of the studies to assess the potential impacts of the proposed Susita Hydro-electric Project.

*U.S. Air Force Elmendorf Air Force Base: Alaskan Air Command

Fifteen interviews with World War II veterans on the subjects of the WWII Aleutian campaigns, bombing attacks, construction of military bases, the defense of Alaska, and flying in Alaska were recorded; some may have restricted access.

*Yukon-Koyukuk School District: Alaska Biography Series Tape Collection

Curt Madison and Yvonne Yarber interviewed and developed a series of books on elders (life histories) from the villages within the school district for classroom use. The subjects include trapping, sled making, potlatches, midwives, bilingual education, mining, reindeer herding, steamboats, and Manley Hot Springs.

The Oral Historians

Non-affiliated individuals collected approximately 1/2 of the listings in the Index. These individuals usually recorded and collected oral recordings with local or regional narrators on subjects of particular personal interest. Typically, the interviews revealed some focus and discipline but a scant understanding of the value of the information being collected beyond its immediate use.

The more cohesive and organized collections were usually prepared by experienced interviewers using a defined methodology, typically to meet the criteria for funding or the auspices of a sponsoring organization, and generally these projects have had continuing utility.

Local historical societies sponsored and served as a depository for much oral history. Specified themes, particularly on local personalities or events are common. And, generally those projects funded externally of a local organization were tighter in scope and methodology.

Local historical societies with oral history experience tended to be in communities which are predominantly Caucasian. Those kinds of societies exist in most urban communities (population larger than 1,500) and in all regions of the state except the southwest, Aleutians, and the north.

Schools have used oral history largely as a method of implementing local history, bilingual, and cultural awareness programs. Thanks in large measure to the presence of Eliot Wigginton and his "Foxfire" type of student oral history project, such school programs first began in 1973 in Craig with the student publication, "Kil-Kas-Gut," and have prolifered across the state at all grade levels including the University. "Wig" appeared at the first Alaska Oral History Conference in 1974, and returned on several occasions to work in several parts of the state. Most accessible of this genre of student work is THE CAMAI-BOOK, edited by Ann Vick and published in 1983 by Anchor--Doubleday.

Federal and State agencies produced recordings during the data collection phase of large scale resource development or historic preservation projects. Noteable among this type of collection were recordings made with land and river users of the area studied for the development of a large hydroelectric dam on the Susitna River. The traditional uses of land and streams for subsistence hunting and fishing were important to land selections for Native people under the Alaska Native Claims Settlement Act, and this information was only available through oral testimony now part of the the 14(h)-1 collection.

In a similar vein, the recent issue of the "Oral History Association Newsletter" contains an article by Dale Stirling who uses oral history to document the traditional use of navigable rivers in Alaska to establish ownership of disputed federal or state lands.

In future analyses of Alaska collections, the longitudinal role of state and federal funding priorities deserves attention. Currently, for instance, Governmental program priorities target minority oriented programs, and such oral history collections are evident in oral history programs.

Why Oral History?

The actual voice of the narrator was important to linguists capturing vocal sounds, folklorists and others recording particular songs or ceremonies, and media specialists whose recordings were made exclusively to capture the narrator's voice. In most projects however, oral history was a technique to elicit information from individuals.

Some projects were to learn about traditional land use such as the Chipp-Ikpikpuk and Meade River Oral History project collected by cultural anthropologists Drs. Wendy Arundale and William Schneider. Similar place name information for the Tanaina Athabascan language was captured by lingust Dr. Jim Kari, and provided much insight into the redesignation of the name Mt. McKinley National Park to Denali National Park although the mountain itself was left as "McKinley" rather than its more traditional Tanaina name "Denali", the great one.

Some of the historic themes for tape collections include the movement for Statehood, a recent review by the Statehood Commission of how Alaska has fared under statehood, the 1964 earthquake and tidal wave which affected southcentral coastal communities, a series of interviews with past presidents of the University of Alaska, and others.

Because of the sense of "frontier" which is a part of the earlier and present Alaska, oral history collections have a predominance of cultural anthropology-- material about Alaska Natives-- and early non-Native settlers. The Index did not indicate much of the material about Alaska Natives was collected by Natives themselves,the exception being interviews more recently conducted by Native school students.

The narrators were equally divided between men and women as were the interviewers, probably due to the nature of the subject matter; when identifiable, the narrators tended to be the elders or those recognized to be experts in particular fields of contemporary or traditional knowledge. Interesting too is the predominance of interviews based on rural subjects.

What Did I Learn?

A quick look over the 5,000 entries in the Index doesn't immediately identify which of the oral history collections are nuggets, which are fine, and which are tailings. All depend upon definitions. As serious oral history collecting is developing across the North, those who set the collection criteria have a difficult but challenging task, and the special conditions--the sense of "frontier", the strength of the oral tradition for languages not yet written, etc.-- existing across the North may call for collection strategies beyond or in spite of those recommended oral history standards conceived in the more southerly climes where larger numbers of interviewers and depositories have evolved different conditions.

Should the collections be finely focused and only nuggets acquired--that is, a collection with good oral interviews, logged, transcribed, indexed, and archived with good curatorial control? But what about the interesting tapes made before any real oral history methodology developed, and which have value but need transcribing and other user aids?

And what are tailings? A recent conversation with a linguist caused me to rethink what "tailings" might be. One of the most recent Alaska Native languages to be declared "moribund" was Eyak which lost its last fluent speaker several years ago. The linguists were pleased to have captured Eyak on tape in formal interview sessions with several of its final speakers, and those tapes have proven to be extremely valuable. However, linguists are now interested in discourse, the day to day language which people spoke at home, oral material originally uncollected or culled as "insignificant".

Those who collect oral history must be concerned not only with what is useable and significant now, but what may be significant in the future as well. While "Past may be prologue," the debate and agonizing over directing collection development toward that which is immediately useable versus that which is not, must be experienced, testing and periodically retesting the vitality of oral history collection philosophy.

As computers have effected efficiency in producing reams of information, and as photocopy machines have belched blizzards of white year 'round, careful initial judgements must determine what information is worth generating, collecting, archiving, and accessing. Several of the following points might help you with your collection:

+ How much staff time, budget, physical archival space do you have? What collection, accessing, and maintenance is possible with that level of effort? Based upon such limitations, collect only what can be adequately handled.

+ Who will use the collections? Should time and money be expended on them if there are no identified users?

+ As you begin your collecting, do it thoughtfully and thoroughly to minimize retrofitting.

+ Clearly identify (and generally narrow) your collection areas; then review them regularly.

+ Could cooperative ventures with other depositories provide grater efficiency of mutual efforts? As political and economic conditions change, what was at one time a "golden goose" might become an "albatross".

+ Set standards for non-solicited materials. One person's junk may be another's treasure; ensure your collection is a treasury and not a dumpster.

+ Will donor constraints hinder access values? Would you collect, hold, and process important materials which would not be available to the public until 25 years hence?

+ Sound your own trumpet and encourage collections use by mainstreaming oral history into the existing information and retrieval systems.

+ Help others thoroughly learn about the discipline of oral history methodology--raise them above the "pop" level to that deserving of the term "discipline."

+ Remember that time is your greatest friend and foe--the urgency for oral history collecting will never abate as all narrators are getting older; but recognize that time ticks at the same rate for those transcribing, indexing, editing, and archiving those oral history interviews.

CONCLUSION

The future and the past of oral history is represented in this opening statement of cultural anthropologist Dr. Richard

Nelson in his address to the 1982 Alaska Oral History Conference:

> Few things in this world are as fragile as a spoken word, or as elusive as the moments of an experience. Once a word, a phrase, or a discourse is finished, it vanishes instantly and the thought it encompasses begins to fade. After an experience has passed, it is committed for only a brief time to human memory, then it, too, fades away. Those of us who wish to record something of the human experience stand always at the edge of twilight, hearing voices that will soon disappear into the darkness. If we cannot catch them and hold them for the future, no one ever will. ("Sharing Alaska's Oral History", p. 15)

BIBLIOGRAPHY

Naisbitt, John. Megatrends: Ten New Directions Transforming our Lives. New York: Warner Books. 290pp. 1982.

Schneider, William (ed.) Sharing Alaska's Oral History: Proceedings of the Conference held at the Captain Cook Hotel, Anchorage, October 26 & 27, 1982. Fairbanks, Alaska: Alaska & Polar Regions Department, Elmer E. Rasmsuon Library. University of Alaska. 71pp. 1983.

Sterling, Dale. Oral History Association Newsletter. Vol. XVIII, No. 2(Summer 1984):1.

Vick, Ann (ed.) The Camai-i Book: Kayaks, Dogsleds, Bear Hunting, Bush Pilots, Smoked Fish, Mukluks, and Other Traditions of Southwestern Alaska. 1st ed. Garden City, NY: Anchor Press/Doubleday. 411pp. 1983.

Yarie, Sally (ed.) Proceedings of the Alaska Symposium on the Social, Economic, and Cutural Impacts of Natural Resource Development. Alaska Pacific University,Anchorage, August 25-27, 1982. University of Alaska, Fairbanks: Department of Conferences and Institutes. 297pp. 1983.

WHAT IS ORAL HISTORY?

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My colleague, Ron Inouye, has stated the problem in his paper, "Alaska's Oral History: Nuggets, Fine, and Tailings". He points out: "Now we in Alaska are adrift in a sea of tapes, collected by amateur and professional alike, but lacking a common methodology." (Inouye, p. 4) The image that he has painted of sifting through the gravels in search of those precious gems of knowledge is quite accurate, all the more realistic to me after spending most of today copying an old reel to reel tape. My experience will help to illustrate some of the problems faced by librarians and archivists working in the field of Oral History and,in turn, will help to illustrate what I would personally like to see emerge as a definition of Oral History for members of the Information Access community.

For months I have been corresponding with an amateur researcher who is preparing a presentation on the history of aviation in Alaska. The first step was to go to our microfiche catalogue of Oral History collections and to prepare an extensive listing of references to aviation in Alaska. The listing of citations included holdings that we have at the Rasmuson library and those that are housed elsewhere in the state. We sent out requests for copies of holdings elsewhere and began to copy tapes in our collection for her review (We do not like to have patrons listen to original tapes.)

Now, to my day of tape copying! A reel to reel tape of Noel Wien, pioneer bush pilot and father of Wien Airlines was identified and the researcher requested the opportunity to review the recording. I set up our pleistocene reel to reel recorder, turned her on and let her have the necessary few minutes to warm up while I installed the connection to a cassette recorder. In this procedure we monitor the recording over to the cassette to insure that the copying goes smoothly. Once we have a cassette then we can easily duplicate it.

A bit like Noel Wien himself, I settled in for a "routine flight". After half an hour, I noticed that the take up reel was becoming full at a faster rate than the original tape reel. The brittle tape was not tightening with the appropriate tension on the take up reel, a common problem with older tapes that have not been run periodically. (Some Oral History programs run their tapes every year.) I was forced to stop every five or ten minutes and begin a procedure of winding and rewinding to insure that the takeup reel could accommodate all the tape. I also had to insure that the cassette was synchronized so that none of the material was lost. A couple of hours later I was ready to turn the tape and begin the same procedure on the other side.

After five hours I had completed the three hour tape and had working cassette copies which I then quickly recopied onto other cassettes for the researcher to take and review. It was not an ordinary flight. The process had taken alot of time and my job was more than pure monitoring.

In the process, I discovered some real gems on the recording, accounts of some amazing mercy flights, the history of particular aircraft, and some basic first hand examples of communication difficulties in the Alaska wilderness of the 1920s and 30s. Now, I will have many uses for this tape and will advise patrons to use it often. Was the price, in terms of time worthwhile?

Without a transcript or a tape log, the tape is still pretty inaccessible. But I know it is valuable! So much of what we call oral history can be summarized in just that way: valuable but inaccessible gems. Given our present situation the only people who can truly capitalize on collections are those resarchers who dig in over the years and learn where the gems are. But that is not enough!

It is not enough to have a poke full of gold. One must know how to use it, one must know how each of the gems fits into the mosaic of Alaska/Northern history so that the big picture can be constructed and so that each of the pieces can be put together to reconstruct an intimate personal view of life. Then, and only then can we claim that oral history is contributing to knowledge.

Therefore, I am calling for a definition of Oral History that goes beyond providing unique first person accounts. I am calling for a definition of Oral History that applies those perspectives to the problems and unanswered questions of history.

Research design, collection focus, curation, and then application of the findings are all critical steps to insure that the rich record which our elders provide is not lost in, as one colleague puts it, "the shoe boxes under the bed."

But where does the librarian/Information Access Specialist fit into this definition? Let me approach that question by stating that libraries are one of the few places in the world where these precious materials stand a chance of being preserved, interpreted and used. But the critical point is that they will not be preserved, interpreted, and used unless the curator of the collection is actively involved in developing the collection to address each of these areas. We are reminded of Mr. Inouye's points (Inouye, pp. 8-9). To this list, I would add one other: + Determination of what is significant. In order to attain this goal it is critical that the curator continually ask the questions: "How does this recording, or potential recording fit into the big picture of Northern history? What questions does it answer?

This fall, I am teaching a course titled, "Discovering the Literature of Oral History". I am teaching the course because I want to explore with students the ways that oral history has been used, to describe the people, places, and events that make up our understanding of the past. In a sense, the course is a departure from the traditional Oral History course where students learn how to run a tape recorder, how to ask questions and how to take care of the tapes that are produced. Lest you think that I am dismissing these other aspects of the job, let me quickly add that I plan to follow my fall course with a sequel which will focus in on just those issues. The point is that we all need to understand what we are after before we begin the collecting, while we are curating and at every step in developing the finding aids and other products that naturally follow. Without the clear picture of how the story adds to our understanding of history, it will remain merely a reminiscence and will fade with the death of the teller. I can illustrate this point best with some examples.

I have been working on a life history of Moses Cruikshank, an Athabascan elder, and I want to share with you a short excerpt from a transcript which illustrates the importance of keeping historical focus. We were talking about his grandfather, Grandpa Henry, when Moses led into a discussion of his uncle, Paul Henry who was Grandpa Henry's son. The context which he presents is instructive for understanding changes in the trapping economy of interior Athabascans.

MC: My grandfather was one of the, one of the great trappers there in early days. He always caught alot of fur.
WS: Where did he have his trapline?
MC: Right out from Ft. Yukon up the Porcupine, yea.
WS: Up the Porcupine?
MC: Up Porcupine, yea, way up. Sometimes he went way up the head of the Porcupine which later was taken over by his son, you know, Paul Henry. That's my uncle, Paul Henry. And they claim that, that he was one of the trappers that brought in the most fur in the early days. In the early days of trapping, Paul Henry. Yes, he brought in so much fur every year, up from way up where his father used to trap, you know up around, way up. Of course he extended the line later on, my uncle did. Of course those days, you know the old, the old timers they didn't, they didn't go at trapping like the later generation, like my uncle did. My uncle, he made it a year around proposition whereas my grandfather, he caught fur as he was trapping for, hunting for moose, you know, snaring rabbits, as long as they get something to eat. He didn't

> go at it regularly like his son did, Paul Henry. Of course, things were beginning to change over too then, you know people had to go out to trap to make a living, yea, after my grandfather's day, yea. (From tape recorded interview with Moses Cruikshank on November 3, 1983, on deposit at the Alaska & Polar Regions Department, Elmer Rasmuson Library, University of Alaska, Fairbanks)

Moses Cruikshank's observation is significant because he has described an important change, because he has explained the implications of the change, and because he has presented a personal context for understanding how that change affected his ancestors. We now have a glimpse of the past through a very personal window.

Recordings are in some respects organic; they can take on a life of their own, and their historical significance is discovered as particular themes emerge as important and become reflected at different times in the interview. I am reminded of an interview with a ship Captain from the Alaska Steamship Company. We were talking about the introduction of radar, gyros and other navigational aids. I had been pressing pretty hard to discover the impact of the new technology, but there was another story that was being told: the role of local knowledge, learned from older seasoned sailors and how important that was, particularly when the new technology failed. I want to share these short excerpts with you to demonstrate how this theme emerged from the interview with Captain Brastad, and how he and I (narrator and interviewer) worked to develop the theme. (From tape recorded interview with Erling Brastad on June 26, 1984, on deposit at the Alaska & Polar Regions Department, Elmer Rasmuson Library, University of Alaska, Fairbanks)

I. Old timers want to hold on to their knowledge...

...when we had no radar it was completely on local knowledge. You had to know those waters to do so. I'll tell you a story about when I was the Second Mate on the "Northcoast," when they began to put in new lights and new aids to navigation up and down the coast. I was in the chart room working on the abstracts of the ship. We were on the way home. And there was two oldtimers that were in the pilot house talking. They didn't know I was listening. And one of them said to the other, "I don't like all these new aids to navigation they are putting in here on the run between here and Seattle, (we were laying in Ketchikan at the time) because if they're going to keep on doing that, anyone can do it."

II. Local knowledge when the gyro fails...

EB: One night in Grenville Channel we were coming down, it was a very, very nasty, dirty night. It was raining and blowing.And being used to the nighttime when you could see... We had a radar but it was one of these small ones, it didn't show us much in these narrow channels; it only had a four inch scope on it. I was standing with my head toward the window facing the rain and I could see we were pulling over to the right of the channel. And I asked the quartermaster at the wheel, I said--"Are you on the course?" He says "Yes, I'm on the course." I says, "Well, come left, come left." He says he's on the course. I said, "Never mind the course, come left, come left." The gyro had gone out and he was following the gyro and we would have gone ashore there if I hadn't noticed it. See, that can happen to a gyro. There was tubes in it and there was things that could go wrong with it and if you didn't watch it at the time, well something could happen. I was just lucky I was watching it that night or else we would have gone ashore because he was following the gyro which took off in the wrong direction. So it can go wrong with the gyro too.

WS: When you were looking out into the storm, what were you picking up on that made you know that you...

EB: Well, I could see that we were getting so close to the beach that I could see our lights were reflecting from the trees.

III. Learning local knowledge from old man Joyce...

EB: Yes, Captain Benjamin Joyce--you've probably heard of him, haven't you? Old man Joyce, he's got two sons who also went to sea. When I first sailed out of Seattle as a Seaman he was Mate of the ship. And he had young sons himself and he more or less took you under his wing and guided you in the right direction. Through the years I learned lots from him. He was a wonderful man, Captain Joyce. He died when he was about 92 or 93 years old. I sailed with him and he was Pilot and I would be Second or Third Mate or Sailor.And later years when we sailed I had him with me as a Pilot--he was Pilot with me.

WS: Talking about old man Joyce...

EB: Yea, he was a wonderful man and so were his sons. I've

known him all these years and like I say, when I sailed under him for many years, later on in years he was Pilot with me on the "Aleutian" and he was on the freighters and that's how it was.
WS: What were some of the things that he taught you?
EB: Oh, he taught me lots about local knowledge on the country up here. If he could tell you something he would. He was one of the few who would pass on something that he thought you should know. And I learned lots from him on this Piloting up and down the coast...

STEPS TO A GOOD ORAL HISTORY PROJECT

Last fall, I had the pleasure of visiting the Provincial Archives of British Columbia, Canada, and there I toured the offices of the Sound and Moving Image Division. My eyes first were attracted to the monographs and tape programs produced on missionary movements, logging, railroading, utopian communities, and the Native Northwest Coast heritage. Then I was shown the archival area where the tapes are stored and copied. I was impressed, impressed at the focus of collection efforts, at the care of the original recordings and at the products that had been produced. I left with a very strong feeling that those curators had carefully crafted a program that produced an invaluable record, a record of original first person accounts that would be mined time and again by researchers, and I felt the publications, because they integrate from script material into interpretive frameworks would lead the general public to a greater appreciation of the actual record. Is this program unique?

It is unusual and wonderful, but there are other equally as impressive programs. In Hawaii, at the Ethnic Studies Oral History program, similar efforts are producing first hand recollections of the islands' population, focused on plantation work, small stores, and labor history, to name a few areas of investigation. That program prepares tapes for deposit at the Special Collections Office of the Hamilton Library, University of Hawaii at Manoa. There they are cared for and accessible to researchers. This type of cooperative collection/curation effort is insuring that the broader definition of oral history which we have been using in this presentation is met. There are other programs which could be mentioned which insure that original contributions to history are made and that the collection is accessible and properly curated.

As I have the opportunity to visit more Oral History programs, I will continue to look at the ways that the organization, whether it be a library, museum, historical society, or Native organization addresses the following areas, which I see as critical to a good Oral History project.

I. What is the focus of each collection--How does it address historical issues?
  + How has the project been conceptualized?
  + How have the narrators been chosen and prepared for the interviews?

II. What happens to the tapes once they have been collected?
  -How are they curated?
  -How are they accessed?
  -Are they logged, indexed, and/or transcribed?
  -Whatis thelong term preservationplanforthe recordings?

III. What are the interpretive products that are produced?
  -Are there monographs?
  -Are there radio shows?
  -Are there dramatizations?

CONCLUSION

Oral History is certainly not new; people have been contributing to oral literature since Homo Sapiens learned to express themselves in words. And since that time we can surmise that people have concentrated their efforts on how to preserve the valuable oral traditions that elders pass on. Recognition of what is valuable is also an ancient exercise and the recognition that survival depends on such knowledge is equally old, although not always accorded its proper recognition.

What is new are the opportunities that modern curation procedures provide for preserving and accessing the oral traditions. Recording devices and sophisticated finding aids with standardized key word access make it possible for us to collect and preserve the finest moments of history. But the core challenge remains one of recognizing historical significance and highlighting the gems so that they are not lost in the gravel.

As I sat adjusting tension on the Noel Wien tape and fretting about the hours it was taking away from other tasks, I was frequently reminded by that old pioneer that his story fit into the big picture, and that made it all worth while.

TECHNICAL SESSION IV

Northern Collections - Can they survive in these economic times?

Historical Perspectives and Innovative Solutions

Hochelaga Research Institute

Alan Cooke

(As the author was unable to provide a written paper a summary of the presentation has been prepared by the editors.)

Alan Cooke had been associated with the Centre for Northern Studies and Research, and its Library since his return to Canada in 1975. He had hoped that he was helping to create a library similar to the one at the Scott Polar Research Institute in Cambridge, England. The Centre for Northern Studies and Research located at McGill University in Montreal built up a unique collection of northern related materials and it was a valuable resource for researchers working in the arctic and northern Quebec/Labrador areas.

In May 1983, the library collection was moved to the Physical Sciences and Engineering Library in McGill's University Library System. The move, although opposed by Alan Cooke and a number of his colleagues, was necessitated by the lack of financial resources to support the library operation. They also assume that the Centre itself will disappear within the next year as McGill does not intend to support the Centre from University funds.

Alan Cooke and his colleagues applied to incorporate under federal charter a non-profit organization to create a polar research library and institute in Montreal. They are now legally incorporated under the name of Hochelaga Research Institute.

Hochelaga was chosen as a name to celebrate the European discovery of the Island of Montreal. The first goal of the Hochelaga Research Institute is to create a library on which the institute's later work will be based. The library is currently housed in Alan Cooke's apartment in Montreal, but will move to an alternate location when it grows in size. Work undertaken by Alan Cooke and his colleagues will provide some funds for purchase of materials and they hope to take advantage of some provincial government programs to provide further funding.

As one of Hochelaga's first ventures, Richard Budgell is now in St. John's trying to organize provincial papers related to Labrador. The initial funds have been provided by the Social Sciences and Humanities Research Council.

Please write to Alan Cooke for more detailed and current information on the Hochelaga Research Institute at:

3660 Ave du Parc
Montreal, PQ
H2X 2J1
Canada

McGill
University

Robert T. Freese
Physical Sciences & Engineering Area Librarian
Macdonald Stewart Library Building

July 23, 1984

Mrs. J. A. Whittick
Information Researcher
Ocean Engineering Information Centre
Memorial University of Newfoundland
St. John's, Newfoundland A1B 3X5

Dear Ms. Whittick:

Mrs. Alice Gutkind brought your letter to my attention, and I appreciate the opportunity to submit a statement concerning the recent history, current status, and prospects of the Northern Studies Collection in the McGill University Libraries.

In my statement, enclosed, I have attempted to present facts simply and to the point rather than with elaborate detail or high-blown phrases. I hope it will be useful in discussions at the Colloquy, which I regret I am unable to attend due to prior commitments at the far end of the continent.

May you enjoy a highly successful meeting.

Sincerely,

/ Robert T. Freese
Area Librarian, PSEAL

Hans Möller
Director of Libraries, Acting

RTF/mp
Encl.

Postal address: 809 Sherbrooke St. W., Montreal, PQ, H3A 2K6

July 1984

THE NORTHERN STUDIES COLLECTION AT McGILL UNIVERISTY

The McGill University Libraries, in its various collections, has long been involved in providing library materials supporting study and research relating to the North. This responsibility of the Libraries expanded with the departure of the Arctic Institute collection in 1975, and the large amount of material on the North acquired by the Libraries since then is represented in the McGill Microcatalogue.

In the mid-1970's, the Centre for Northern Studies and Research began a special collection of library materials in Purvis Hall and employed a librarian and several assistants on special funds to develop and catalogue it. In accordance with McGill University policy, this collection became the responsibility of the McGill University Libraries in January 1979, and the librarian and an assistant were placed on appointment, paid by the Libraries. At that time, it was agreed that the Northern Studies Library would be maintained in Purvis Hall as long as the Centre remained there, but should the Centre move onto the main campus the collection would be incorporated into the planned Macdonald Stewart Library.

In the early 1980's, budget retrenchment at McGill required staff reductions in the Libraries. Service levels in a number of the library units were seriously affected. In April 1981, one of the positions which could no longer be covered by the Libraries budget was that of the Northern Studies Librarian, Mrs. Alice Gutkind, but she continued to serve for two more years on a part time basis on special funds.

By May 1983, with no assurance that special funds would continue to be available, and with a building adjacent to the Macdonald Stewart Library, it was decided to move the Northern Studies Collection into the Macdonald Stewart Library where users could have access to it within existing library security and the routine maintenance and service of the Collection could be performed by the existing Physical Sciences & Engineering Library staff.

CURRENT STATUS AND PROSPECTS.

The Northern Studies Collection is located in the Macdonald Stewart Library building, which is occupied by the Physical Sciences & Engineering Library. The serials and the catalogued monographs are in open stacks surrounded by study seating. Newspapers, charts, information files, and uncatalogued monographs are kept in a secured area which is accessible to users on request.

Funds for acquisitions are ensured by income from the Max Bell Foundation grant.

Current subscriptions have been maintained. Circulation, reference, course reserve, and interlibrary loan services and the maintenance of the Collection in the stacks are provided by the Physical Sciences & Engineering Library staff.

The Northern Studies Collection is accessible to all users during library service hours. During the school year, these are: Monday-Thursday 08:45-21:45, Friday 08:45-17:45, Saturday 10:00-16:45.

A decision is imminent on the future cataloguing and development of the Collection. The McGill University Libraries utilize an automated cataloguing system, the Library of Congress classification, and a catalogue on microfiche (the 'Microcatalogue'). Past cataloguing for the Northern Studies Collection has been done on an in-house program using a variant of the Universal Decimal classification. If UDC cataloguing is to continue, there will be on-going funding for added staff for this purpose, and the card catalogues will be replaced by microfiche to supplement the Microcatalogue. If the Collection is converted to LC, one-time funding will enable records for the Collection to be integrated with the Microcatalogue, and cataloguing can be done by the same staff that does it for Physical Sciences & Engineering.

It is expected that a large room within the library security of the Macdonald Stewart Library soon will become available for the Northern Studies Collection. This room could serve in a variety of ways: a secured but attractive space for the newspapers, charts, information files, and any donated personal collections; office space for any added library staff performing specialized acquisitions, cataloguing, or reference assistance; a controlled environment for those using the Collection for research; a seminar or study room with controlled access for students enrolled in the Northern Studies program.

With provision made for the continued cataloguing of the Collection, and with a special room as a focal point, development of the Collection and of its use will again be moving forward.

Northern Libraries Colloquy

10th, St. John's Newfoundland

August 16, 1984

Technical Session IV: Northern Collections - Can they survive in these economic times? Historical perspectives and innovative solutions.

The theme of this morning's session is: Northern collections - can they survive in these economic times? While the realities of budget cuts and the loss of buying power of the Canadian dollar effect us all across this country, I would still suggest a modified yes as an answer to that question.... And on that note inform you that the Arctic Institute of North America collection - representing one such northern collection - is alive and growing, and still living at the University of Calgary Library.

I plan to give you some background on the collection since its arrival from Montreal - and then proceed to outline what we have been doing with it to make it ever more accessible and useful to clientele of the University Library - both on campus and off. While I would not consider our activities in this regard as particularly "innovative solutions," I do feel that they are helping to bring the collection into the mainstream of library development in this country, and as such represent a worthwhile approach.

As most of you are aware, the Arctic Institute moved to Calgary in 1976 and was housed - along with its Library - in the Tower part of the University Library - now called the MacKimmie Library, by the way. The Institute Library continued to operate independently of the University Library until after negotiations between the University and the Institute, its' assets were transferred to the custody of the University Library on April 1, 1979. The agreement drawn up at that time between the Institute and the University, includes a number of understandings (27 to be exact) - but I'll only mention a few of the more salient ones.

On transfer of custody, the University of Calgary Library agreed: to conduct a full inventory of the collection; to maintain the collection as a discrete entity wherever we chose to locate it; to assure the "highest level of bibliographic compatibility between the Arctic Institute collection and the rest of the Library"; to "organize the collection in an appropriate manner, to assure effective use by the University Community and the interested public, while also assuring reasonable levels of security"; to maintain the collection at its current level of comprehensiveness to the extent that additional financial resources, not currently allocated to the Library, are made available for the purpose"; to remove (if appropriate) "materials from the collection which do not contain some reasonable element of the north, the arctic or the antarctic;" and, to continue to supply "reasonable" collection support for the journal. Arctic, and for ASTIS, "within the limitations of the amount of new external funds provided to the Library."

So what has the University of Calgary done with the Arctic Institute collection since 1979? How have we measured up to the established agreement? I am no doubt biased, but on the whole I think we have done reasonably well. In February of 1979 a task force was struck to inventory both the collection and operations of the Institute Library. Its report included a number of interesting findings: eg. 22,362 "unit records", i.e. the Library's shelf list, were microfilmed, indicating for each item its status in the collection. This serves as the legal record of the state of the AINA Library at the time the University Library acquired it. As part of a 5-year review that I have been requested to do vis a vis the collection, we are conducting another inventory using the microfilm as a point of comparison. Although it is too early to tell, staff generally feel that there is a fair amount "missing" from the collection, and are beginning to verify this on the microfilm. I personally feel that this probably represents, in part, a normal loss rate in libraries because of the nature of the material, eg. ephemeral; as well as, in part, a reflection of the incomplete and inconsistent records of library collection holdings, that the task force pointed out. Our 5-year review will attempt to provide a more detailed statistical and content analysis of just what is missing.

I trust that a few minutes ago as I was giving you some of the terms of the agreement, that you focussed on the words "discrete entity." Although I have only been associated with the AINA collection since 1981, this has to have been one of the most contentious issues raised during this time, and also one upon which the information rattling through the grapevine has been the most inaccurate. I hope now that I can finally lay this issue to rest. The University of Calgary has kept its agreement - we have not dispersed the collection, nor do we have any current or future plans to do so. The collection resides in a fairly high profile position on the 2nd floor of the Library Block, where my staff of 5 professionals and 6 support staff provide full university reference and information service based on this collection, as well as for the rest of the Environment-Science-Technology collection. The 2nd floor, by the way, is our only reference point in EST and is a major traffic point for library clientele, so I feel it is significant that we have placed the AINA collection in this prominent location.

Now that I've told you that we haven't dispersed the collection - I'll own up to that being a small white lie. The one part of the collection we have physically located elsewhere is the valuable rare book collection. When we received the collection, we were quite concerned about the physical condition of this material. To prevent further deterioration we have located it in our Special Collections area, where temperature and humidity are controlled, as well as additional fire protection provided by a halon gas system - all to meet Federal Cultural Property standards. We also have done some restoration work on the materials, and continue to do so as the the funding becomes available. Within the speical collection area, the collection is readily identifiable, and is maintained as a discrete unit. I know that you will find that an acceptable move on our part.

In conjunction with that we have also security stripped the entire collection, for its further protection.

Under its present regime,- Alan MacDonald, for those of you familiar with him - the University of Calgary Library has a strong philosophy of service to the academic community and other users of the Library. Part of this philosophy is to provide very open access to the collection - e.g. we do not charge for external people to have a borrowers card, and we loan government documents, fiche and film (as nearly 1/2 of the 3 million item collection of the University of Calgary is in microformat, we felt this was essential).

To say the least, providing this type of access to the AINA collection has given us, and continues to give us, a real challenge. I don't want to dwell on the quote unquote "problems" of a special library collection within a university library context - suffice it to say that a collection originally filed backwards from most library collections, a unique and under-developed classification scheme, a highly detailed and partly colour-coded card catalogue, and a significant amount of unclassified material - have provided us with - well, a lot of work - but also some intriguing and interesting bibliographic work. I currently by the way, have 6 staff working on various AINA projects.

What, then, have been some of our "solutions" in this situation? Well, since April 1, 1979 materials added to the collection have been classified using Library of Congress. Access to these items has until recently been through the main card catalogue. However, a particularly exciting development for us has been the introduction of our online system - DOBIS/LIBIS. All of our machine-readable cataloguing has been rolled into DOBIS - about 1 million items - and officially in September, public access will be provided for the use of library clientele. Consequently, access to all of the newer classified AINA materials will be readily available through this modern and ever-developing system. But of course, this is only a fraction of the Institute collection. Consequently, we have a number of projects on the go or planned to go in the near future: eg., all the journals have been coded and listed in our computer-produced serials list, which is updated quarterly; the government documents collection is being assessed, bibliographic authority established, holdings recorded, and filed in order - we are also weeding out non-arctic/antarctic related publications in this process, e.g., general reports of the Canadian Meteorological Service, etc., and in the future we hope to place the government documents collection on our online system (NOMADS) to make it truly accessible; in addition, we are currently classifying the microforms collection; we are gradually working our way through approximately 175 Montreal boxes of materials of unprocessed, unrecorded materials that came from Montreal and were just stored; we are weeding the reprint and pamphlet files of all non-arctic/antarctic related materials; and finally, my real hope is to start shortly on the gradual re-classification of the original monographic collection - then we feel this valuable collection will truly be accessible to students and researchers, as well as to the general public.

In terms of collection development, we have narrowed the original focus of the AINA Library. In part, this is because additional funding has not been made available, consequently one's buying power is reduced - but more importantly, the focus has been narrowed to reflect the changing research interests of the Institute itself. Ross Goodwin has published the selection policy of the ASTIS bulletin. I find that to be a particularly useful guideline and follow it accordingly. We still receive,of course, a significant amount of free material through exchange agreements, and in addition I buy everything requested directly by Institute staff. If it is not north-related, I attempt to convince another Area Library to buy it for the University of Calgary Library. In this regard, I feel the Institute researchers are particularly well served. To further support the ASTIS bulletin, the ASTIS indexers have access to virtually all materials received by the University Library *prior* to their cataloguing and processing by our staff. While we do add approximately 75,000 items per year to our collection, a large university technical services operation is obviously not as fast - nor could it ever be - as a simple listing in a current awareness bulletin. Needless to say when the downtown business library community, in particular, sees the ASTIS bulletin, they want to borrow the unprocessed items of the collection listed there. We do accommodate them and rush process the material; however, it does cost us a significant proportion of staff time in tracking down at what stage in our process these are. With the recent implementation of the DOBIS acquisitions module, we hope to alleviate some of this problem.

While there are a great many more things I could say about the Arctic Institute collection and what services the University of Calgary Library provides in relation to it, I would like to close with how I think northern collections can and will exist, despite economic difficulties. First, collections will exist, most simply, through the activities of interested librarians, information specialists and archivists such as ourselves - through our mutual collaboration and information sharing to ensure that collections don't get thrown into boxes and buried in basements, as one speaker mentioned earlier. More significantly, however, they will be maintained *and* developed through *conscious* collection rationalization - I heartily applaud the Alaskan efforts mentioned the other day that appear to be leading to this - Again, this group strikes me as a possible forum in which this could be discussed with real significance, and with the possibility of real results. Finally, I feel that if we focus overmuch on "collections" per se and whether they're in one location or another, we miss the forest for the trees. It is the *information* in these that is important to maintain. Universal access to that information then becomes the key element. While I hate to see unnecessary duplication of effort in collecting, and in the development of databases, I feel the latter will help to solve the problem of the survival of northern - or for that matter- *any* and all collections. The development of databases and the development of such technology as the National Library's iNet-Gateway project, which provides inter-computer communication, will allow variously formatted information to be drawn together in a network arrangement making physical location largely irrelevant - *but* also necessitating ever greater cooperative efforts. Once again, I think this group could be both instrumental and influential in such cooperative efforts.

Hazel Fry
1984.08.16

REPORT FROM THE BOREAL INSTITUTE FOR NORTHERN STUDIES

by

G.A.(Nita) Cooke

I hadn't intended to say quite a few things that I am going to say, but I feel I have to rebut some things right from the start.

The Boreal Institute has been in Edmonton at the University of Alberta, some 180 miles north of Calgary, since 1961. We will be celebrating our 25th anniversary next year or the year after. As a librarian with a collection that is still growing, all I can say to you Alan is "Good luck"! I feel that only now, after 20+ years, are we beginning to achieve the stature we want, to have enough of a collection and enough of a tab on it to be able to offer the kind of service that a good research library can. There is no quick fix as you probably know. Even if you can xerox, it takes time and you are going to need years and years and years. I hope you have them.

I have tried to stay sane and reasonable about the move of the Arctic Institute to Calgary. As Hazel has said, it was a highly political situation - we had a nouveau riche province, we had inter-city rivalry and we had inter-university rivalry, all of those kind of nasty political things going for us that brought the Arctic Institute collection to Calgary. And almost in opposition to a collection that was growing at the University of Alberta, a provincially funded University, which means the government had been paying for it all along. The move made no sense; it still makes no sense to me, to have two major collections so close in a country as large as Canada. We were in the west at the oldest University in Alberta and at the entreport to the western Artcic; the Arctic Institute was at McGill University in Montreal, the entreport to the Eastern Arctic; and this made eminent sense to me. Both Nora and I fought the move in anyway that we knew. But that is another story that we might tell you one day, because we have kept all the documentation on it.

So now, with the changing focus of the Arctic Institute to more science and technology and with various other collections around the country, e.g. the Institute for Northern Studies at Saskatoon, falling prey to University politics, we are left as the only general major collection in Canada. I could almost say we are the only major collection in North America, excluding Alaska, because obviously Alaska has very general collections as well. We collect from children's literature straight through the whole gamut to the highly scientific material. Our aim is to serve ANYONE with an interest in the North and I hope to be able to keep it that way. No matter what the subject, no matter what the interest or reading level, I hope to have something to fulfil the need. Because of this, of course we can't be complete in anything, but I feel that we have built a very good general collection; I can start you off, and I know where my specialist collections are and as long as I know this, I can help. To help us locate material in our own collection, we have been building a database since 1977, and I would argue with Alan that this database already that takes conscious note of region, time and subject. Again I say "Good luck to you" as it takes an awful lot of time and money to put the data in in great detail. We have done a lot towards that, and we still consciously do. But one has to make compromises.

Our database BOREAL, which has been built since 1977 on the University of Alberta's computer, has always been available to anybody with an account with the University's Computing Centre, (they do allow accounts from outside as was explained at the 1980 Colloquy by Brenda Chawner) but this is somewhat restrictive. The University is on Datapak and you can come in that way, but not many people want to have an additional account with another computer. I have been talking to the people at CISTI and at the National Library and, just before I left to come to this Colloquy, I had a letter from Elmer Smith, Director of CISTI, informing me that they had reviewed our request and that they will be mounting BOREAL on their CAN/OLE system. Also, because the database is based on an existing collection, we will be part of the CAN/DOC system since we can back searches with the documents and that can give fast delivery through interlibrary loan. So things are moving. Our database now holds over 25,000 items and grows roughly at the rate of 400 items per month. Of that 400, about 50% is newly catalogued material including monographs, consultant reports, etc. and about 50% are analytics to the material that we have already acquired. These analytics are from cards that we receive from the Scott Polar Research Institute, which, although catalogued from a distant research Institute's point of view, we find very useful. We sometimes modify the UDC numbers to better reflect our own interests from a western Canadian point of view. The database will be mounted on CAN/OLE sometime in 1985, and I will keep you informed through the Northern Libraries Bulletin. This will make our database more widely available since many know of CAN/OLE and can access it.

Like every Institute at a University, ours is not oblivious to what is going on at other Universities and we are at the moment under PACCR review. PACCR stands for President's Advisory Committee on Campus Reviews. Systematically, every department, institute, and adminstration unit of the University is being reviewed. As a first step under a PACCR review we are involved in a self-study and then there will be outside reviewers brought in to visit. It is giving us an awful lot of work, but is a good way to review what we have done and what we hope to do. At times I get optimistic - we are the last Institute left, so they can't possibly abolish us. But then on the other hand, on my black days, I think - the University looks around and says Saskatoon did it, McGill did it, why don't we? And it is true, these decisions are often made almost in isolation, without very much consultation as Alan said. It is up to us and I don't know how we are going to do it, but we will have to keep people informed. Our Insitute reports to an Academic-Vice President, the Vice President- Research, so we are fairly high on the ladder, but we are beginning to realize that we must blow our own trumpet a little more. In November we will be organizing a conference which will coordinate all the northern researchers on our campus. The Boreal Institute is hosting the conference and this will give us some more visibility.

The best I can say is that we are alive and well and kicking, that we have been able to provide a lot of access to the literature and that this will continue to grow.

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Q. Where does your money come from? The University?
A. Yes. We are an Institute of the University, we are part of the budget of the University and that gives me my base acquisitions budget too. It also hires 11 staff and provides basic operating funds for the Institute. Because of this, we are subject to the arbitrary percentage cut that every department of the University gets when the budget comes out. This year I lost my secretary since the budget cut came just as my secretary was leaving. Each department was taxed so many thousand dollars and that matched her salary, so I was not able to replace her. Thus the University provides our base funding. Also it is an ill wind that blows nobody any good, and the ill wind of the Arctic Institute going to Calgary blew us some good too. Part of the result of the Arctic Institute moving to Calgary was that both Institutes received specific funding from the Government of Alberta and we continue to receive that. It comes now as part of the regular University budget from the Government of Alberta, but is earmarked to the Institute and is a permanent part of our base budget. Most of this funding goes to fund research grants to students, but 10% is set aside for the library and this has

allowed me to acquire everything that I think we should acquire and hopefully will continue to do so. We also have contract research which brings in additional funds, but our base operating funds are as an Institute of the University.

TECHNICAL SESSION V

An International Polar Information Network: Is it possible?

AN INTERNATIONAL POLAR BIBLIOGRAPHY: WILL IT BE A NETWORK OF NETWORKS?

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INTRODUCTION

In order to mark this occasion of the 10th Northern Libraries Colloquy, I feel that the time is right to take a close look at where we, as members of the Northern Libraries Colloquy, have come in our efforts toward the existence of a common polar bibliographic database.

The year 1971, which marked the first meeting of the Colloquy, also, by an odd and at that time unknown coincidence, marked very closely the end of the collection of materials to be published in the Arctic Bibliography (AB). This "splendid example of international cooperation" <was made possible> "Only by the pooling and exchange of knowledge to produce minute, comprehensive, and accurate bibliographical control of a vast literature cutting across subject disciplines and national boundaries..." (Smith, 1970, p. 14). It has been the expressed desire of this Colloquy at every meeting up until now to somehow emulate the example set by the Arctic Bibliography, even though ideas as to how this might be accomplished have been as numerous as the number of Colloquy members!

What I would like to present to you today is a brief review of the progression of these ideas toward what I believe is the realization of an international polar

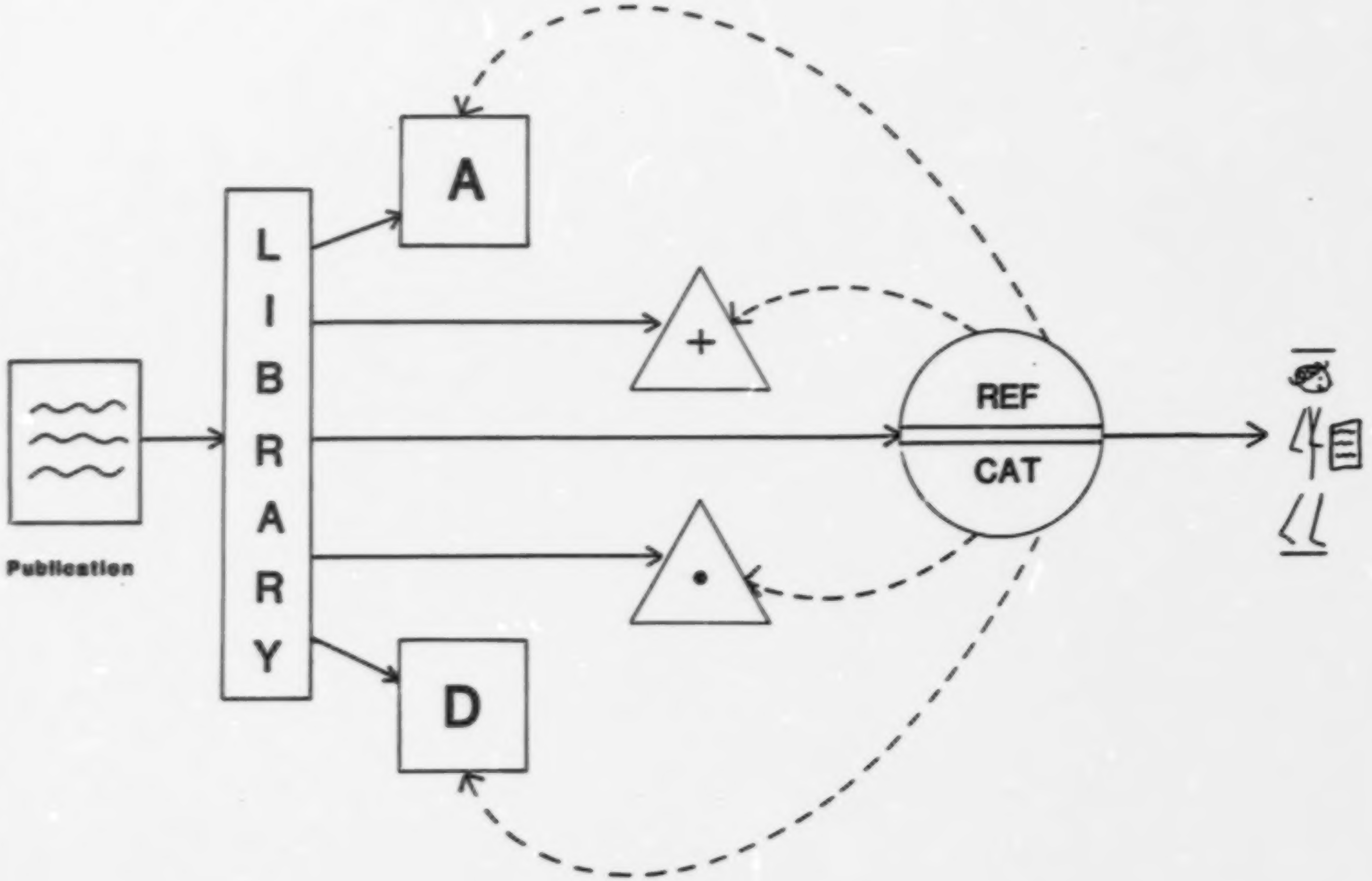
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FIGURE 1. SCHEMATIC DIAGRAM OF NORTHERN LIBRARIES COLLOQUY NETWORK.

bibliography. You will understand of course that the South Polar regions are already quite adequately covered, leaving us to deal mainly with the literature of the Arctic and nonpolar cold regions. In my estimation a polar bibliography already exists in the guise of an informal network.

For the purpose of this presentation, I will define a network simply as a system of linked cells. I will try to demonstrate that our Colloquy in fact has built such a network, supplying both the major content of the information cells and the communications channels linking them.

INFORMATION CELLS

As you will see on the diagram (Figure 1), I have classified the information cells into three categories. The bibliographic databases which are represented by these cells are numerous, and since most of them have been produced by Colloquy members present, I do not intend to discuss them individually, nor will I comment on their coverage of the literature. They are described in some detail as Appendix 1 of this paper.

On Figure 1, the squares represent printed bibliographies covering limited areas of the arctic (squares with A inside), for example Baffin Island Quaternary Environments; an annotated bibliography, or single disciplines (squares with D inside) such as Permafrost: a bibliography 1978-1982. This type of bibliography is usually, but not always, published without the intention of frequent updating. These bibliographies are usually compiled by a single individual based at one institution, although information sources used may be very widespread.

The triangles represent bibliographic projects covering a much wider geographic area such as the whole of the arctic or antarctic or both; some of these are continuing projects (The Library Catalogue of the Scott Polar Research Institute, Cambridge, England, represented by a triangle with a + inside) and others will have no further updates (Arctic Bibliography, represented by a triangle with a . inside). These bibliographies generally are prepared at one institution using information sources available at that institution, such as its card catalogue. Some of these bibliographies are computer produced, and even available online within and/or outside of that institution.

The circle represents commercial online search services (upper half of circle), such as DIALOG Information Retrieval Service (DIALOG), Systems Development Corporation (SDC) and QL Systems, and bibliographic utilities or support services (lower half of circle), such as Washington Library Network (WLN) and Research Libraries Information Network (RLIN) which have become increasingly useful and accessible over the past several years. These systems hold tens of millions of bibliographic records. The online search services are separated into files which the user accesses singly, such as the Arctic Science and Technology Information System (ASTIS) file on QL Systems. The files in these systems are purchased or leased by the vendor from producing institutions including several represented at this Colloquy. The bibliographic utilities are accessed as a whole, even though they contain entire collections of major libraries, such as the Dartmouth College collection in RLIN. Users of these services are also the contributors to the databases.

Although many of these information cells or bibliographic products of individual institutions have existed and would continue to exist without the Northern Libraries Colloquy, I would like to show that perhaps the Colloquy has evolved into a specialized system of communication channels (represented by arrows on Figure 1) linking together the cells of polar bibliography so that the whole is greater than the sum of its parts, so to speak.

THE COLLOQUY AS A COMMUNICATIONS LINK

In 1975 Peter Adams and William Barr published a paper, entitled "Seminar on the Collection, Transmission and Exchange of Information on the North," in which they referred to special librarians as "human links in the information flows of their field; despite the advent of automated information systems there is no sign of the appearance of a device or system to replace the well connected, intensely interested, special librarian in this area" (Adams and Barr, 1975, p. 12). They go on to state specifically that "The Northern Libraries Colloquy (with its publication the Northern Libraries Bulletin) is a group which has deliberately set out to foster links" (Adams and Barr, 1975, p. 13). They also characterize the Colloquy as a group whose initial objectives were to improve "the collection, transmission and exchange of information on the 'North' between special libraries" (Adams and Barr, 1975, p. 12).

The main themes of nine meetings of this international group of librarians and other resource people have revolved around a desire to share information on an international scale. In the following section of this paper, I would like to detail the development of these themes through the first eight Colloquys, for which published or taped proceedings are available.

First Colloquy (Colloquy on Northern Library Resources, Edmonton, 16-17 June 1971)

Two themes which were to prove recurrent were brought up at the first Colloquy:

1. Cooperative schemes between libraries were discussed, with the suggestion that the field of northern research could be split up among the various libraries for coverage.

2. The concept of an international polar bibliography was discussed. The lack of an international coordinating body and the lack of funding sources for such a project were seen as drawbacks.

At this point in time, the computer was discussed only as a method to produce bibliographies. Marie Tremaine, editor of AB volumes 1-14, led this discussion and strongly advised caution in planning computer applications. This turned out to be a prophetic warning in light of the attempt made to computerize production of AB after her retirement a few years later!

Second Colloquy (2nd Colloquy on Northern Library Resources, Hanover, New Hampshire, 31 May - 2 June 1972)

The second Colloquy witnessed an elaboration of the theme of cooperation among institutions, when Wes Pietkiewicz, of the U.S. Army Cold Regions Research and Engineering Laboratory (CRREL), introduced the idea of the CRREL Information System Project as part of a larger system. He said, "we could ... consider the Cold Regions Project as one cell in a network of interlocking information projects pertaining to cold regions science and technology" (Pietkiewicz, 1972?, unpaged). He envisioned a system of institutional centers contributing coverage of designated areas of information to one center, such as the Library of Congress (LC). This was truly a network concept. Again, the question arose concerning "the development of mechanisms for coordinating work among the different centers" (Ibid.).

At this same meeting, Geza Thuronyi, Head, Cold Regions Bibliography Project, cited as an example of cooperation among Colloquy members the contribution by the Scott Polar Research Institute (SPRI) of entries for the Antarctic

Bibliography 1951-1961. Thus a type of "regional" cooperation was already underway.

Third Colloquy (3rd Northern Libraries Colloquy, Cambridge, England, 25-29 June 1973)

At the third Colloquy, the first attempt to formalize cooperative polar bibliographical activities was enacted with the formation of a committee of delegates "to examine the possibilities of recommending to our directors any steps that might be taken to establish an internationally operated bibliography" (3rd Northern Libraries Colloquy, Cambridge, England, 25-29 June 1973, p. 8). Perhaps this group set themselves too lofty or vague a task; its only report came from Nita Cooke at the fourth Colloquy.

Fourth Colloquy (Fourth Northern Libraries Colloquy held at The Arctic Institute of North America, Montreal, Canada, June 3-6, 1974)

By 1974, the year of the fourth Colloquy, it was becoming all too apparent that AB was on its deathbed, a victim of premature and incompetent computerization, of rising costs and of a fatal delay in publishing volume 16. (This volume, eventually published in 1975, contained very little material collected later than 1971.) Guy Guthridge of the United States National Science Foundation (NSF) Polar Information Service, made AB's demise official with the announcement that both U.S. and Canadian funding for the project was being withdrawn. The official position taken by the governments was that "unresolved is whether an AB is needed at all" and that possibly the same materials could be extracted from the disciplinary abstracting services such as Engineering Index and Biosis (Guthridge, 1975, p. 27). The reason for this approach (using existing disciplinary databases) by the U.S. government later became apparent, at the American Association for the Advancement of Science (AAAS) Alaskan Science Conference in 1977, where Guy Guthridge spelled out the extent of government involvement in these services: "Seven major disciplinary abstracting and indexing services were computerized with financial help from the NSF Division of Science Information. The support was large--approaching 30 million dollars over a decade--and, in addition to enabling the services to stay in business, it stimulated a whole new industry of on-line access to some six million scientific and technical literature citations" (Guthridge, 1977, p. 9).

Responding to the urgent matter of AB, the Colloquy sent a cable expressing the group's concern to NSF and to the National Research Council of Canada.

Fifth Colloquy (Fifth Northern Libraries Colloquy, Rovaniemi, Finland, May 26-30, 1975)

At what was certainly the most international of the Colloquys, a "Polar UDC" meeting was held at which cooperation was sought in subdividing the regional classification of the "Universal Decimal Classification

(UDC) for Use in Polar Libraries" (Roberts, 1976). Harry King would coordinate these suggestions at SPRI. Mention is made of the exchange of catalog cards between the Boreal Institute for Northern Studies (BINS)and SPRI who both use the expanded UDC. (In 1972 two meetings had been held, in Kobenhavn and Cambridge, between AINA, SPRI and the Arktisk Institut to discuss more effective collaboration with an aim toward a joint cataloging scheme.)

In regard to the AB, which seemingly refused to die, discussion continued where it had broken off the year before: a reply to the Colloquy protest of 1974 from NSF; a counter response from the Colloquy; and a statement from Guy Guthridge of NSF read by Peter Anderson repeating the stand taken at the Fourth Colloquy. However, he added that NSF was funding a study (which went to the Franklin Institute in Philadelphia) to determine coverage of arctic materials by the discipline-oriented automated databases. Ken de la Barre of AINA presented the results of an AB user survey which showed that indeed an AB type service was viewed as necessary (de la Barre, 1976). Meanwhile, the AB void was being filled to some extent; SPRI was preparing to have its library catalog published by G.K. Hall, and BINS had successfully launched its Northern Titles (Key Word In Context) KWIC index, not only as a computer print-out but as an online search service available through QL Systems Ltd.

Sixth Colloquy (Sixth Northern Libraries Colloquy, University of Alaska, Fairbanks, Alaska, July 11-15, 1976)

AB may have died, but there must be a wake. At this meeting, Peter Anderson chaired a session entitled "After the Arctic Bibliography, What?" (The proceedings of this Colloquy were never published, so I had to listen to this on tape!)

Geza Thuronyi gave the results of a study he had done on the coverage, through the automated databases, of literature picked up for the Antarctic Bibliography. The results were very close to those later found by the Franklin Institute in regard to coverage of the arctic literature. For the Antarctic Bibliography only about half of the literature was covered, with the best coverage in geology and geophysics, and the weakest in general and miscellaneous areas, and the field of "gray" literature (Thuronyi, 1976).

The idea of the CRREL project/Antarctic Bibliography/LC becoming a center for a larger bibliographical project on the polar areas was discussed enthusiastically.

Another important theme surfaced again. Garth Graham talked at some length about his paper outlining an International Northern Information Network (IN2) (Graham, 1973). "The basic assumption of this report is that the development of the uniform bibliographical techniques for northern research libraries cannot be considered in isolation. THEY ARE DEPENDENT ON THE DEVELOPMENT OF A COOPERATIVE INFORMATION NETWORK. ...THE BEGINNINGS OF ONE

CAN BE DISCERNED IN THE INFORMAL ORGANIZATION KNOWN AS THE NORTHERN LIBRARIES COLLOQUY." However, Graham noted the lack of a method to administer and organize the effort (Graham, 1976). Sufficient interest was generated at this time for another "Colloquy Committee on Northern Bibliography" to be set up to pursue the idea of an international polar bibliography again. This time the committee did meet again, fourteen months later, at the AAAS Alaskan Science Conference meeting in Anchorage. This body endorsed the concept of IN2, as did the Canadian Library Association, and there was renewed hope that some political or financial clout in our favor had materialized.

Also apparent in the discussions at this meeting was that the Colloquy was evolving toward an identity with the following characteristics:

1. we do not see ourselves as "an international coordinating body",
2. we do not wish to be structured into the above, and
3. we see ourselves primarily as a forum; an assembly for discussion.

Seventh Colloquy (Seventh Northern Libraries Colloquy, Paris, 19-23 September 1978)

I quote Jean Malaurie from the introduction to the proceedings: "...the output <of arctic literature> is so vast that from now on international cooperation and realization are required ... And I repeat, the circulation of information must be carried out on an international scale if one wants to avoid a situation where scientists find themselves dangerously isolated and thus engaged in repetitive research. There are a growing number of documentary networks of international stature ... <mentions MEDLINE etc.> ... the 7th Conference and its informal organization can indeed become, in subsequent conferences, the nucleus of a reflective and active body devoted to subjects concerning the arctic in terms of documentary data, which should result in a program of international cooperation" (Malaurie, 1982, pp. 11-12).

With the benefit of hindsight from studying the Paris proceedings, I now feel that the realities of an informal international polar bibliographic network were beginning to emerge at the Paris meeting, almost un-noticed and certainly un-noted.

In the traditional area of manually produced, printed bibliographies, Jean Malaurie was able to pursue his pet project, referred to at the 5th Colloquy, of "thematic (subject) bibliographies" pertaining to arctic areas; a few dozen of these were published in the Paris proceedings!

Another new area of "regional" cooperation was announced by which some cataloging would be shared between CRREL and World Data Center-A (WDC-A) for Glaciology.

Nita Cooke presented a very useful compilation of the major printed "area" bibliographies pertinent to the

Canadian north. But she also gave updated information on computerized bibliographic projects - ASTIS online was approaching readiness at this time, and Northern Titles and Yukon Bibliography were both available online to anyone by subscription (Cooke, 1982). The transition from manual, printed bibliographies to online systems shared by all was further emphasized in the first demonstration of COLD, the online version of the CRREL bibliography.

And, what seems now to be very significant news, was the notice that the University of Alaska and other Alaskan institutions had joined WLN.

In retrospect, these transitional developments which were underway seem of more importance than the news that the proposal to the Association of Canadian Universities for Northern Studies (ACUNS) for a northern bibliography project would take an additional two to three years to become a reality (in 1980 it was still on hold for lack of funds). And the report from Garth Graham regarding the Colloquy Committee on Northern Bibliography did not hold out realistic hopes that much would be accomplished by that Committee.

In 1978 I think we were still reluctant to believe that the answer to our bibliographical needs would rely very heavily on the computerized databases. After all, the Franklin Institute study had concluded that at least 30 percent of the arctic-related periodical literature was not referenced in any commercial online service (Franklin Institute Research Laboratories, 1977). Peter Anderson and I had stated in our paper given at Paris that "The new technology afforded by the computerization of bibliographic databases has not as yet become refined enough to serve the area-based, multidisciplinary approach needed to encompass literature pertaining to the polar regions" (Andrews and Anderson, 1982, p. 299). However, the idea was raised at that same meeting, by W.E. Washburn who was perhaps older and wiser than some of us, as to whether the needs of a polar bibliography could perhaps be met by a combination of computer retrieval and traditional bibliographies. "Despite the existence of traditional printed bibliographies ... there is a feeling in the air that future bibliographic efforts will be in the direction of computerized, publication-on-demand, systems like the ASTIS" (Washburn, 1982, p. 328).

Events too new in 1978 to be evaluated were upon us. DIALOG's online search service had become available on a large scale only around 1974, which in retrospect casts a jaundiced light on the usefulness of the Franklin Institute study done in 1976. Further outdating that study were the addition of the CRREL database to SDC in 1978/1979, and the addition of ASTIS to QL Systems at about the same time. In 1978, WLN included only several thousand records from the Alaska libraries. These records soon numbered in the tens of thousands. Now the Dartmouth College library polar materials are available on RLIN, which even has search-only accounts to take advantage of its subject access capability!

I now think, giving credit as I already have to the benefits of hindsight, that perhaps Paris was where reality intruded on the Colloquy's deliberations concerning an international polar bibliography, bringing us a heavy dose of what was actually happening in the real world.

Eighth Colloquy (8th Northern Libraries Colloquy, Edmonton and Whitehorse, June 1-6, 1980)

One only needs to look at the table of contents for the 1980 Colloquy at Edmonton, to see that the computer "revolution" was upon us. Computerization, preferably of the online, interactive variety, had become the name of the game, from in-house systems (such as that at the Northern Studies Library at McGill University and BOREAL at the BINS), to databases commercially available through vendors such as QL Systems Ltd. (Boreal Northern Titles, Yukon Bibliography, ASTIS) and SDC (COLD), to regional cooperative efforts via networking (Information Nord Quebec <INQ> and Alaska's participation in WLN).

The Franklin Institute study, which I discussed at this meeting pointing out its many pitfalls, was, as I have said earlier, already out of date in its assessment of the availability of arctic literature on computerized databases. ACUNS had missed its opportunity to participate in any meaningful way in the early stages of a northern bibliography.

Geza Thuronyi, in his paper at the 8th Colloquy, came right to the point which I am attempting to go past now. He saw the sudden mushrooming of a level of cooperation emerging among Colloquy members at what I have termed a "regional" level - cooperation among a few libraries, for cataloging and other services. He specifically mentioned the cooperation among Scandinavian libraries, among Alaskan libraries, between SPRI and AINA, between SPRI and BINS, and between WDC-A and CRREL as ongoing arrangements, with newer arrangements being reported at this meeting. One of these newer arrangements was INQ, a cooperative network among four northern research centres in Quebec. I am not certain what is the present status of this project. And, he suggests further possibilities for cooperation among members by inputting materials into existing databases, an idea which of course was suggested at some of the previous Colloquys. He asked again what the role of the Colloquy should be in operating cooperative ventures (Thuronyi, 1982). That question could certainly become the basis for some discussion here at the present meeting!

SUGGESTIONS FOR FURTHER DEVELOPMENT

I have identified two main areas where further work is needed to improve the polar bibliographic network.

1. "Regional" Networks

If further development of cooperative networks is dependent on computerized systems, as it seems that it will be, then the examples of cooperation set by WDC-A and CRREL, and just during this past year by the Ocean Engineering Information Center (OEIC) and ASTIS, must be followed. Peter Adams, in a 1981 review of the ASTIS services, had proposed the kind of cooperation that is now becoming a reality; he saw that ASTIS had "the capability of forming a substantial part of the foundation of a major hemisphere information system which will, in the modern world, prove a worthy successor to Arctic Bibliography" (Adams, 1981, p. 275).

I have been involved myself during the past three years with a cooperative project which has resulted in the publication of Holocene Paleoclimates: an annotated bibliography (ABHP) (Andrews, 1984, in press). On the geological scale of events, the Holocene Epoch, roughly covering the past ten thousand years, exhibited climates mainly warmer than the present climate. Since those paleoclimates may prove to be analogous to future climatic warming predicted on the basis of the build-up of carbon dioxide in our atmosphere, this project was funded by the U.S. Department of Energy (DOE), and came to the attention of its Carbon Dioxide Information Center (CDIC) at Oak Ridge National Laboratory (ORNL) in Oak Ridge, Tennessee. CDIC was interested in merging my bibliographic database with their computerized online bibliographic file, Carbon Dioxide, Carbon Cycles, and Climate. Cooperation between us was seen as a way of increasing use of the ABHP file through online accessibility, while substantially increasing the size of the file at CDIC. I was allotted $5000 in-kind support from DOE to input my file into their mainframe computer, in return for which they have computer-produced several very useful indexes to the bibliography, and provided me with a computer typeset copy of the whole bibliography which is now in press as an INSTAAR Occasional Paper. Several methods of transferring my 1300 annotated references in machine-readable form to their IBM 3033 computer were considered, such as via remote terminal from Colorado, use of an Optical Character Recognition system, etc. We decided to try an idea which was somewhat experimental at the time (1982), and which I had seen demonstrated at the University of Denver Graduate School of Librarianship and Information Management. We decided to use a microcomputer (Radio Shack TRS-80 III) to input my text to diskettes (89 of them!), which were then sent by mail to CDIC and read there by the identical microcomputer via a transfer program into the IBM 3033. This plan, although not totally free of problems, worked admirably and of course is no longer considered novel. Is there any possibility that this method could be used by some of us smaller institutions to contribute records to existing databases and receive some user privileges in return?

What about the possibilities of more Colloquy member libraries becoming members of WLN or RLIN, thereby sharing the the vast resources available through those systems? Is there any possibility for one of the smaller libraries to become a "department" of one of the larger libraries sharing technical services through the bibliographic utilities? Could computerized cataloging systems within libraries such as BINS and WDC-A ever be linked and made more widely accessible? Will WLN, with all of the University of Alaska's polar holdings provide a subset "polar bibliography", or will RLIN provide the same from its Dartmouth College Library holdings? If the resources at BINS and SPRI could become even more widely available, would much else even be needed?

2. A Guide to Reference Sources

From time to time over the years of the Colloquy, in addition to the continuous desire for more and better bibliographies, certain delegates have seen the need for guidance among the mass of information and its bibliographic recording. Referring again to the paper by Adams and Barr (1975) their presentation concludes with the remark, "We would suggest that the time is ripe for an annotated bibliography of bibliographies relevant to the North" (Adams and Barr, 1975, p. 18). In 1976 at the Fairbanks Colloquy, Geza Thuronyi introduced the notion that one result of the Franklin Institute study would be "to develop a search strategy for extracting literature from these sevices and to educate the user in taking advantage of these mechanized data bases" (Thuronyi, 1976). Unfortunately, in my opinion, this hope was not fulfilled - the few suggestions in the Franklin study (Orr, 1977) were not very helpful. Those of you who are familiar with the Paris Colloquy may remember that Peter Anderson and I presented a paper suggesting a bibliography of polar bibliographies - we are still hoping to produce this. At that time, in discussing these ideas with Marvin Falk, he responded that "what I think we need is a guide to bibliographic research as well as a list of bibliographies" (Falk to Andrews, Feb. 2, 1978). At Edmonton I concluded my paper on the Franklin Institute study as follows "If at some time, energy and money were made available to design a search manual emphasising arctic materials or make an SDI profile available for Arctic research at all levels, what might we come up with then?" (Andrews, 1982, p. 119). This suggestion was discussed at some length at the business meeting which took place in Whitehorse, where the Colloquy agreed that Carol Beckar (then librarian at the Centre for Northern Studies and Research at McGill) and I should work toward getting some funding to support a journal article on how to use "northern" databases, both printed and automated. Our collaboration ended with my last letter to her in January of 1981 to which there was no response.

Would a properly thought-out manual on searching computerized and manually produced indexes make it possible to use commercially produced databases more successfully as a polar bibliography???

During the past three years, while working on my afore-mentioned Holocene Paleoclimates: an annotated bibliography (Andrews, 1984a, in press), I have had occasion to consider at length the inconveniences of locating literature on the arctic. My own experiences in this regard lead to the following general observations:

1. Until quite recently, most of the large computer-accessed databases have been subject or discipline oriented and thus not suited for search by geographic area. For instance, the only way I could search GEOREF for my bibliography was by geological time descriptor (Holocene) and the subject descriptor (Paleoclimatology). The result was a printout of 1225 references which I then had to peruse visually to pick out ones appropriate to the geographic areas wanted. There has to be a better way!

2. Because most arctic research is primarily area based, it is necessary to search several discipline-oriented databases to satisfy the interdisciplinary nature of the research. For example, in order to collect the literature on Holocene paleoclimates of polar areas, I had to search the databases covering the literature in the earth sciences, the biological sciences and the atmospheric sciences.

3. Another problem, which is not peculiar to those searching for the literature of the arctic, is that indexing terms are often inadequate or inconsistent, making it necessary to use a variety of terms to cover all possibilities. Inputting of these databases still leaves a lot to be desired.

I am sure among us here there are numerous horror stories on "my attempt to search for whatever". Perhaps if we got together on this topic we could come up with some very useful hints to users, or at least help each other out.

CONCLUSIONS

I would like to suggest that the Colloquy has now matured to a point where its identity need no longer be questioned. It can now be characterized as the communications link in a polar bibliographic network, the information cells of which the Colloquy has had a large part in producing.

As I stated myself, in a recent review of the proceedings of the 7th and 8th Colloquys, the Colloquy exists as "an international forum for exchange of information and ideas among the polar bibliographic community. The actualization of this cooperation in the form of an 'international polar bibliography,' may eventually be achieved through a process of networking, which has already occurred at a regional level; for the present an 'international polar bibliogrpahy' exists as many concrete parts joined together through an 'invisible college' of communication among the members of the Northern Libraries Colloquy" (Andrews, 1984b, p. 270).

REFERENCES

Adams, W.P.(1981). ASTIS Current Awareness Bulletin (book review). Arctic V.34:274-275.

Adams, W.P., and Barr, W.(1975). Seminar on the collection, transmission and exchange of information on the north. In: Bird, J.B. (ed.). Proceedings Fifth Canadian Universities Northern Science (Training) Conference, April 1974. McGill Sub-Arctic Research Paper No. 27, January 1975, pp. 11-38.

Andrews, M.(1982). The Franklin Report revisited: a further investigation of database manipulation in aid of polar research. In: Cooke, G.A. (Nita) and Graham, G. (eds.). Proceedings of the 8th Northern Libraries Colloquy, Edmonton and Whitehorse June 1-6, 1980. Miscellaneous Publication, Boreal Institute for Northern Studies, The University of Alberta, Edmonton, Alberta, pp. 114-120.

Andrews, M.(1984a). Holocene paleoclimates: an annotated bibliography. University of Colorado. Institute of Arctic and Alpine Reserach, Occasional Paper No. 41. 2 vols. In press.

Andrews, M.(1984b). Arctica 1978. VIIe Congres International des Bibliotheques Nordiques. 7th Northern Libraries

Colloquy. 19-23 Septembre 1978/Proceedings of the Eighth Northern Libraries Colloquy: Edmonton and Whitehorse, June 1-1, 1980 (book review). Arctic and Alpine Research V.16(2):270-271.

Andrews, M., and Anderson, P.(1982). A proposal for a bibliography of polar bibliographies. In: Arctica 1978, VIIe Congres International des Bibliotheques Nordiques/7th Northern Libraries Colloquy, 19-23 septembre 1978. Editions du CNRS, Paris, pp. 299-301.

Cooke, G.A.(1982). Bibliographical activity on the Canadian North and Mid-north regions. In: Arctica 1978, VIIe Congres International des Bibliotheques Nordiques/7th Northern Libraries Colloquy, 19-23 septembre 1978. Editions du CNRS, Paris, pp. 303-309.

de la Barre, K.(1976). Survey of Arctic Bibliography users. Northern Libraries Bulletin Issue No. 13:10-14.

Falk, M.(1978). Written communication. Rasmuson Library, University of Alaska, Fairbanks, Alaska.

Franklin Institute Research Laboratories (1977). Study of coverage of arctic research by discipline-oriented abstracting and indexing services. Final Report (to NSF). Various pagings.

Graham, G.(1973). A report on the development of uniform bibliographic techniques for northern research libraries. Mimeographed. Produced for the Northern Science Research Group, Department of Indian Affairs and Northern Development. 25 pp.

Graham, G.(1976). Tape recording. Sixth Northern Libraries Colloquy, University of Alaska, Fairbanks, Alaska, July 11-15, 1976. Sixth session, tape VI(1)-2.

Guthridge, G.G.(1975). Polar information service. In: Coutinho, I. (ed.). Proceedings of the Fourth Northern Libraries Colloquy held at The Arctic Institute of North America, Montreal Canada June 3-6, 1974. Arctic Institute of North America, 44 pp.

Guthridge, G.G.(1977). Scientific information and communication: what the National Science Foundation is doing. In: Science Information Exchange in Alaska, Volume III: Needs, applications, and techniques in information analysis and dissemination. Technical Session Papers of the 28th Alaska Science Conference Sept. 22-24, 1977, published by the Alaksa Division AAAS and AEIDC, University of Alaska, pp. 8-15.

Malaurie, J.(1982). Foreword. In: Arctica 1978, VIIe Congres International des Bibliotheques Nordiques/7th Northern Libraries Colloquy, 19-23 septembre 1978. Editions du CNRS, Paris, pp. 11-12.

Orr, J.R.(1977). Study of the Arctic Bibliography and the abstracting and indexing services. Arctic Bulletin V.2(12):295-302.

Pietkiewicz, W.(1972?). USACRREL Information System: the project as part of a larger system. 2nd Colloquy on Northern Library Resources, Hanover, New Hampshire, 31 May - 2 June 1972. Corps of Engineers, U.S. Army Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire, n.p., n.d.

Roberts, B., compiler (1976). Universal Decimal Classification for use in polar libraries. Third edition. SPRI Occasional Paper No. 2. F.I.D. No. 552, July 1976. Reprinted in: The Library Catalogue of the Scott Polar Research Institute, Cambridge, England. Boston, Massachusetts, G.K. Hall & Co. Vol. 8, pp. UDC<1> - UDC<178>.

Smith, E.M.(1970). Arctic Bibliography. Canadian Library Association Occasional Paper No. 79, 15 pp.

3rd Northern Libraries Colloquy, Cambridge, England 25-29 June 1973. Scott Polar Research Institute, University of Cambridge, 31 pp., undated.

Thuronyi, G.(1976). Tape recording. Sixth Northern Libraries Colloquy, University of Alaska, Fairbanks, Alaska, July 11-15, 1976. Sixth session, tape VI(1)-2.

Thuronyi, G.(1982). Cooperation in bibliographic services. In: Cooke, G.A. (Nita) and Graham, G. (eds.). Proceedings of the 8th Northern Libraries Colloquy, Edmonton and Whitehorse June 1-6, 1980. Miscellaneous Publication, Boreal Institute for Northern

Studies, The University of Alberta, Edmonton, Alberta, pp. 109-113.

Washburn, W.E.(1982). Reflections on the bibliographic revolution in arctic studies. In: Arctica 1978, VIIe Congres International des Bibliotheques Nordiques/7th Northern Libraries Colloquy, 19-23 septembre 1978. Editions du CNRS, Paris, pp. 327-329.

APPENDIX 1

Bibliographic databases for use in polar research

(This is only a sample; please contact author for further information.)

1. Bibliographic databases covering limited areas of the arctic

Bibliographic database services for use in polar research.

TITLE Baffin Island Quaternary environments; an annotated bibliography

METHOD Manual/Printed

AUTHOR Andrews, Martha; Andrews, John

PUBDESC Institute of Arctic and Alpine Research, University of Colorado, Occasional Paper No. 33, 123 pp.

DAT PUB 1980

UPDATE No

DATES Late nineteenth century to 1980; mainly since 1950

SCOPE As title suggests, covering as a broad subject area. Over 460 entries, mainly English language.

GEOGR Baffin Island

SUBJ Any connected with the Quaternary environment.

FORMAT Citations arranged according to thirteen more specific subject categories; nearly all entries have abstracts, either from author of paper or from secondary source.

INDEXES Author; has two one-page maps.

SOURCES Mainly from secondary sources which are listed: Arctic Bibliography, Ecology of the Canadian arctic archipelago, Geo Abstracts A, Landforms and the Quaternary, etc.

AVAIL As in PUBDESC, Boulder, CO, 80309, $5.50 + $1.00 mailing fee

TITLE Yukon Bibliography

METHOD Manual/Printed

AUTHOR J.R. Lotz, compiler

PUBDESC Ottawa, Northern Co-ordination and Research Centre, Department of Northern Affairs and National Resources. 155 p. (Yukon Research Project Series, no. 1)

DAT PUB 1964

UPDATE Yukon bibliography update, 1963-1970. Compiled by C.A. Hemstock and G.A. Cooke. Edmonton, Boreal Institute for Northern Studies, University of Alberta, 1973. 420 p. (Occasional Publication, no. 8-1)
Yukon bibliography update to 1973. Compiled by C.A. Hemstock. Edmonton, Boreal Institute for Northern Studies, University of Alberta, 1975. 384 p. (Occasional Publicaiton, no. 8-2)
Yukon bibliography update to 1975. Compiled by M.F. Ridge. Edmonton, Boreal Institute for Northern Studies, University of Alberta, 1977. 408 p. (Occasional Publication, no. 8-3)
Yukon bibliography update to 1977. Compiled by H.L. Thomas. Edmonton, Boreal Institute for Northern Studies, University of Alberta, 1978. 476 p. (Occasional Publication, no. 8-4)
Yukon bibliography update to 1979. Part I. Compiled by I.G. Singh. Edited by G.A. Cooke and I.G. Singh. Edmonton, Boreal Institute for Northern Studies, University of Alberta, 1980. 599 p. (Occasional Publication, no. 8-5)
Yukon bibliography update to 1979. Part II. Compiled by I.G. Singh. Edited by G.A. Cooke and I.G. Singh. Edmonton, Boreal Institute for Northern Studies, University of Alberta, 1981? 263 p. (Occasional Publication, no. 8-6)
Yukon bibliography update to 1980. Compiled by I.G. Singh. Edited by G.A. Cooke and I.G. Singh. Edmonton, Boreal Institute for Northern Studies, University of Alberta, 1982. 231 p. (Occasional Publication, no. 8-7)
Yukon bibliography update to 1981. Compiled by I.G. Singh. Edited by G.A. Cooke and I.G. Singh. Edmonton, Boreal Institute for Northern Studies, University of Alberta, 1983. 306 p. (Occasional Publication, no. 8-8)
Yukon bibliography update to 1982. Compiled by I.G. Singh & L. McPherson. Edited by G.A. Cooke and I.G. Singh. Edmonton, Boreal Institute for Northern Studies, University of Alberta, 1984. ??? p. (Occasional Publication no. 8-11)

DATES Early imprints to 1964

GEOGR Yukon Territory

SUBJ All

FORMAT Arrangement is by subject headings, with authors alphabetized within; updates have brief indicative abstract also.

INDEXES None. Updates each have author and subject indes. Yukon bibliography cumulated author index to 1980. Compiled by J. MacDonald, Edited by G.A. Cooke. Yukon bibliography cumulated subject index to 1980. Compiled by J. MacDonald, Edited by G.A. Cooke. Edmonton, Boreal Institute for Northern Studies, 1984. (Occasional Publication No. 8-9; No. 8-10).

SOURCES Mainly from Arctic Bibliography, AB numbers are given. Update volumes compiled from sources listed in each (libraries, indexes, computerized databases. Latest updates (to 1980 etc.). Later volumes compiled mainly from materials received by the Boreal Institute.

OTHER From 1971, machine-readable input accepted by QL as file YKB. Updated approx. every two years. As of 1982 contained 3610 items. Available through QL Systems Ltd., 1018 Place de Ville, Tower B, 112 Kent Street, Ottawa, Ontario.

AVAIL Earlier volumes still available. For listing and prices contact: Boreal Institute for Northern Studies, CW-401 Biological Sciences Building, The University of Alberta, Edmonton, Alberta, T6G 2E9.

2. Bibliographic databases covering narrow subject disciplines

Bibliographic database services for use in polar research.

TITLE Permafrost: a bibliography 1978-1982

METHOD Computer produced/Printed

AUTHOR Brennan, Ann M., compiler

PUBDESC Glaciological Data Report GD-14. vii + 162 + 172 pp.

DAT PUB 1983

UPDATE None

DATES 1978-1982

SCOPE Subject headings are listed on page 3 with numbers of items included for each given. The list contains over 4400 bibliographic entries. Prepared for the Fourth International Conference on Permafrost, Fairbanks, Alaska, 1983.

GEOGR All cold regions

SUBJ Permafrost

FORMAT First section is an alphabetical listing by author. The second listing is an alphabetical sort by subject (one to each citation). Standard bibliographic description is given.

INDEXES None.

SOURCES The majority of entries were derived from the Cold Regions Bibliography Project, Library of Congress, machine-readable database. Other computerized databases searched were: Georef, Geoarchive, NTIS, Dissertation Abstracts, Compendex, Meteorological and Geoastrophysical Abstracts, and Citation Data Base (WDC/NSIDC).

AVAIL World Data Center A, University of Colorado, Campus Box 449, Boulder, Colorado, 80309, USA. Free of Charge.

3. Bibliographic databases covering most of the arctic or antarctic or both, with continuous updates

Bibliographic database services for use in polar research.

TITLE Antarctic Bibliography

METHOD All data are entered on a single computerized database that accomodates both the Bibliography on Cold Regions Science and Technology and the Atnarctic Bibliography, thus eliminating duplication of effort between the two bibliographies

PRODUCER Prepared by the Cold Regions Bibliography Project, Science and Technology Division, Library of Congress for the Department of Polar Programs, National Science Foundation

AUTHOR Thuronyi, Geza T., Editor

PUBDESC Library of Congress, Washington

DAT PUB 1965 (Volume 1) to present (1982, Volume 12)

UPDATE Every 1 to 2 years, plus monthly updates

DATES 1962 to present

SCOPE Literature published worldwide; 29,824 references, with abstracts, as of May 1984

GEOGR Antarctic

SUBJ All

FORMAT Standard bibliographical citation, with abstract, arranged by 13 subject categories

INDEXES Author, subject, geographic area, and grantee

SOURCES Library of Congress and other libraries

OTHER Also online with SDC as file COLD (see entry)

AVAIL Contact producer

TITLE Antarctic Bibliography 1951-1961

METHOD Printed

PRODUCER Prepared by the Library of Congress and Sponsored by the Office of Polar Programs, National Science Foundation

PUBDESC Library of Congress, Washington

DAT PUB 1970

UPDATE See entry for Antarctic Bibliography

DATES Covers dates as in title

SCOPE 4767 references published worldwide in numerous languages; foreign language titles are given also in English translation.

GEOGR Antarctic

SUBJ All

FORMAT Standard bibliographic citations with abstracts for about 15%; arranged by 13 subject categories then alphabetically by author

INDEXES Author, subject, and geographic area indexes

SOURCES Library of Congress and other libraries, listed. Also includes a large number of selected holdings of the Scott Polar Research Institute.

AVAIL See PUBDESC

Bibliographic database services for use in polar research.

TITLE Bibliography on Cold Regions Science and Technology (Volumes 1-15 were issued as the Bibliography on Snow, Ice and Permafrost, SIPRE Report 12. With volume 20 the title was changed to Bibliography on Snow, Ice and Frozen Ground, with Abstracts, and with volume 23 the current title was adopted.)

METHOD All data are entered on a single computerized database that accomodates both the Bibliography on Cold Regions Science and Technology and the Antarctic Bibliography, thus eliminating duplication of effort between the two bibliographies.

PRODUCER Cold Regions Bibliography Project, Science and Technology Division, Library of Congress, sponsored by and prepared for U.S. Army Corps of Engineers, Cold Regions Research & Engineering Laboratory.

AUTHOR Thuronyi, Geza T., Editor

DAT PUB 1951 to present

UPDATE Yearly; also monthly as Current Literature - Cold Regions Science and Technology.

DATES 1951 to present; some older material

SCOPE International in scope; some 60% of the material listed is in Russian. Volumes 1-22 contain 26,000 records. Volumes 23-37 contain approx. 66,000 records for a total of over 92,000 records. Books, journal articles, and reports are included.

GEOGR Worldwide.

SUBJ As in title.

FORMAT Full bibliographic citation. In 1968 abstracts, which had always appeared, were eliminated. At present, some items again have abstracts.

INDEXES Part 2 of each volume is the author and subject indes for Part 1. Cumulative indexes are available for vols. 1-10, 1-17, 23-27, and 28-32.

SOURCES Library of Congress, other libraries (i.e. CRREL), and special acquisitions.

OTHER Also available online with SDC as file COLD (1969 to present, see entry for COLD)

AVAIL Contact producer.

Bibliographic database services for use in polar research.

TITLE The Library Catalogue of the Scott Polar Research Institute, Cambridge, England

METHOD Printed photolithographically

PUBDESC G.K. Hall & Co., 70 Lincoln Street, Boston, Massachusetts, 19 vols.

DAT PUB 1976

UPDATE First supplement. 1981. Vols. 1-5. Lists publictions ctalogud between June 1976 and August 1979. Recent Polar and Glaciological Literature acts as a selective supplement, see entry.

DATES From nineteenth century to present; some earlier. Scott Polar Research Institute was started in 1920.

SCOPE 118,000 author entries for books, periodical articles, conference proceedings, etc.

GEOGR Polar regions.

SUBJ Whole field of knowledge as it applies to polar regions.

FORMAT Full bibliographical citation, and, where needed, a note of contents. The first seven volumes are arranged alphabetically by author. Classified arrangement of subject and area (vols. 8-14 and vols. 15-19) is according to the UDC as adapted by Brian Roberts for Polar Libraries (see reference below).

OTHER See: Andrews, Martha, 1978, The Library Catalogue of the Scott Polar Research Institute, Cambridge, England. Book Review. Arctic and Alpine Research. vol. 10 (1):147-148; Universal Decimal Classification for use in Polar Libraries, compiled by Brian Roberts. Third Edition, Revised 1976. S.P.R.I. Occasional Paper No. 2. F.I.D. No. 552, July 1976, reprinted in Vol. 8 of Library Catalogue ..., pp. UDC<1> - UDC<178>.

AVAIL From publisher, $1790.00

Bibliographic database services for use in polar research.

TITLE Northern Titles - KWIC Index; also known as Boreal Northern Titles

METHOD Computer produced printout. Also machine readable version on QL Systems.

PUBDESC Edmonton, Boreal Institute for Northern Studies. University of Alberta.

DAT PUB 1972+

UPDATE Monthly; annual cumulation.

DATES Current to each issue

SCOPE KWIC index of the authors (first one only) and titles or headlines of relevant articles in periodicals, government documents, and northern newspapers. By 1982 QL Systems had 85,830 documents in the computerized database.

GEOGR Exclusively "the North". Unique coverage of northern and native newspapers

SUBJ All of relevance to "the North"

FORMAT Computer produced KWIC index.

SOURCES Materials received at the Boreal Institute Library.

OTHER Copies of the full article available at the Boreal Institute's library if not available locally (10 cents/page). Also available by on-line searching through QL Systems as file BNT. Has been online since 1975 or 1976, with back files included.

AVAIL Boreal Institute for Northern Studies, The University of Alberta, Edmonton, Alberta, T6G 2E9. $50/yr, incl. first class mailing, code book, 12 monthly issues, updating code sheets, and annual cumulation. Cumulations from 1973, and on available at $30 each. For on-line version, contact QL Systems Ltd., 1018 Place de Ville, Tower B, 112 Kent Street, Ottawa, Ontario.

4. Bibliographic databases covering most of the arctic or antarctic or both, without further updates

Bibliographic database services for use in polar research.

TITLE Arctic bibliography

METHOD Manual/Printed

AUTHOR Tremaine, Marie, ed. vols. 1-14; Martna, Maret, ed. vols. 15-16. Prepared under the direction of the Arctic Institute of North America.

PUBDESC Department of Defense, Washington, D.C. (vols. 1-11); Superintendent of Documents, Washington, D.C. (vol. 12); McGill University Press, Montreal, Canada (vol. 13); McGill-Queen's Univ. Press, Montreal & London (vols. 14-16)

DAT PUB 1953-1975.

UPDATE None after 1975.

DATES Covered literature from classical times until collecting ended in approx. 1972. Journals included were searched from issue one.

SCOPE Over 108,000 records had been entered at the end of publication; all countries and at least forty languages of publication were included.

GEOGR Arctic, subarctic, and other cold regions, as defined and redefined by AINA.

SUBJ All fields of science, technology and the arts

FORMAT Bibliographic citations arranged alphabetically by first author, with foreign titles translated, language of original indicated, and location where copy seen given. Abstracts are original, prepared by subject specialists, in English regardless of language of publication.

INDEXES Comprehensive subject-geographic index, with SEE references; coordinates are given for place names which are referenced by number to accompanying map (foldout) in each volume. There is no cumulative index to the 16 volumes.

SOURCES Numerous; journals and libraries cited are listed in each volume. By later volumes 95% of entries were from journals; Also covered are books, government documents, handbooks, etc.

AVAIL Contact: Arctic Institute of North America, The University of Calgary, 2500 University Drive N.W., Calgary, Alberta, Canada T2N 1N4

5. Commercial online search services and bibliographic utilities

Bibliographic database services for use in polar research.

SERVICE ASTIS Online Database

METHOD Automated/Machine-readable

PRODUCER QL Systems Ltd., 1018 Place de Ville, Tower B, 112 Kent street, Ottawa, Ontario. "A project of the Arctic Institute of North America/University of Calgary."

UPDATE Frequent

DATES Mainly 1978 to present.

SCOPE As of September 1983, 12,000 documents online, mainly English language.

GEOGR North American Arctic

SUBJ Science and technology; also economic and social conditions, native peoples, archaeology, history, art, literature

FORMAT Standard bibliographic citations; abstracts, location code for ILL.

INDEXES See ASTIS/QL User's Manual, ASTIS Occasional Publication No. 4, Second Edition, May 1983, 462 pp., $30.00, order from QL Systems.

SOURCES Mainly AINA Library/Univ. of Calgary Library; also APOA member companies and other libraries and information systems (OEIC inputting last 3 yrs acquisitions)

OTHER Microfiche version (annual, each year represents a total cumulation), 1983, 43 fiche, arranged by 24 subject categories. Indexed by subject, geographic, broad geographic, author, title. 83% of the 13,330 (Feb 1984) documents published between 1977-1983. Avaialble for $75.00 prepaid from ASTIS, Arctic Institute of North America, The University of Calgary, 2500 University Drive N.W., Calgary, Alberta, Canada T2N 1N4. Also available: ASTIS Current Awareness Bulletin, published bi-monthly, 70pp. with 400 citations arranged by subject with geographic and author indexes. Lists documents received during the two-month period indicated on the issue cover, mailed about three weeks after the end ot that two-month period. Subscriptions ($75.00) by calendar year only.

AVAIL From producer; accessible from Canada, the U.S., Europe, Japan, and Australia.

Bibliographic database services for use in polar research.

SERVICE COLD

METHOD Automated/Machine-readable

PRODUCER Systems Development Corporation, Santa Monica, California; online version of that published by the Library of Congress (sponsored by and prepared for the Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire 03755).

UPDATE Quarterly, approx. 1500 records per update

DATES 1969 to present; 1962 to present for Antarctic

SCOPE Includes government reports, journal articles, conference proceedings, monographs, CRREL reports, patents, dissertations, and specialized research reports. International in scope; 60% of the material listed is published in the Russian language. Approx. 4,000 records are added yearly; since 1969 over 67,000 entered

GEOGR Cold regions wherever they may occur.

SUBJ Hydrology, meteorology, climatology, engineering, geology, and geophysics; intended to support research on the natural phenomena of cold regions. World literature dealing with Antarctica, the Antarctic Ocean and sub-Antarctic islands

FORMAT Bibliographic citations, with indexing terms.

INDEXES Use latest volume of printed version.

SOURCES Prepared at the Library of Congress. Additional input from WDC-A (and Dartmouth College Library? See NLB No. 26, Mar '82, p. 5.)

OTHER See: Cummings, N.H., 1981, Cold Regions Science and Technology bibliography, Cold Regions Science and Technology, 4:73-75 and Dumont, N., 1982, C.R.R.E.L. Bibliography on line (computer searchable), Arctica 1978, VIIe Congres International des Bibliotheques Nordiques/7th Northern Libraries Colloquy, pp. 335-339, for searching techniques. See also entry for printed version of CRREL Bibliography.

AVAIL Contact producer.

Bibliographic database services for use in polar research.

SERVICE DIALOG Information Retrieval Service

METHOD Online service; printouts available offline also

PRODUCER DIALOG Information Services, Inc.

AUTHOR Database files purchased or leased

DAT PUB 1972-to present

UPDATE Continuous

DATES Vary with database, mostly late 1960s to present

SCOPE 130 dtabases; over 50 million records

OTHER Files with most polar materials are BIOSIS Previews, GEOARCHIVE amd GEOREF

AVAIL U.S., Australia, Canada, Europe, Japan. Main office: 3460 Hillview Avenue, Palo Alto, CA 94304.

Bibliographic database services for use in polar research.

SERVICE SDC Search Service

METHOD Online service; printouts available offline also

PRODUCER System Development Corporation

AUTHOR Database files purchased or leased

DAT PUB 1965-to present; internationally 1975-present

UPDATE Monthly or oftener for most files

DATES Vary with files

OTHER Files with most polar materials are COLD, GEOREF, and BIOSIS Previews. See separate entry for COLD. GEOREF and BIOSOS Previews also available on DIALOG

AVAIL U.S., Canada and England. Main office: 2500 Colorado Avenue, Santa Monica, CA 90406

Bibliographic database services for use in polar research.

SERVICE RLIN (Research Libraries Information Network)

METHOD Online bibliographic support service for cataloging and other technical services

PRODUCER

UPDATE Continuous

SOURCES User libraries are contributors; single database represents the cataloged collections of member libraries. Of major interest for polar materials is the contribution of the Dartmouth College Library, including the Stefansson Collection which has been re-cataloged and updated from the book catalog of 1968 (see separate entry)

AVAIL By membership; also has "search only" accounts at $60/hr.

Bibliographic database services for use in polar research.

SERVICE Washington Library Network (WLN)

TITLE Alaska and Polar Regions Book and Periodical Collection (this is the collection of most interest, see below for others)

METHOD Online, with various offline products

PRODUCER

AUTHOR Rasmuson Library, University of Alaska, Fairbanks

UPDATE Frequent

SCOPE Entire special collection. WLN also has in its database cataloging records of the following Alaska libraries:

> The Fairbanks North Star Borough Library System; The Alaska State Library; Anchorage Municipal Library System; Alaska Court System Library.
> Washington State Library cataloging records for government documents concerning Alaska are also included.

AVAIL To members in the geographical region served by WLN

Bibliography of Northern Canada

by

G.A.(Nita) Cooke

It started coming through to me at the 4th Colloquy, when I reported on an overview I had done of who was doing what and where regarding bibliographic control of polar literature. The Scandinavians it seemed to me had a very good handle on their information, Alaska was making progress by going with WLN, and maybe a total arctic bibliography was by now, with the mushrooming of the literature, an impossible dream. I think perhaps it is. It scares me, the amount of literature, and maybe if we chopped it up into little pieces and each was responsible for that part and did our bit the whole would come together. From that idea, we thought, well Canada hasn't got a very good handle on its northern literature, maybe we should get together and produce a bibliography, a Bibliography of Northern Canada, as it came to be called in the end. One thought was to call it Arctic Bibliography:Canada and that there would be Arctic Bibliography: Greenland, Arctic Bibliography:Alaska and so forth. We found it very feasible, but the problem was that we thought it would be too closely identified in people's minds with the old Arctic Bibliography which we were not trying to just transpose into automated form; we were trying to do something different. So we got away from that connotation by calling it Bibliography of Northern Canada or BNC for short.

Originally I think there were four of us, Garth Graham from

Yukon, myself, Ross Goodwin from Arctic Institute and Gertrude Rosenburg from DIAND (Department of Indian Affairs and Northern Development). I had a dream; I still have a dream which at times gives me horrible nightmares because of the enormity of the problem. My dream was that we were all doing part of the whole, ASTIS was more than what was needed because they were covering all arctic literature, BOREAL was more than was needed because we did not stop at the Canadian boundary and various other things. So we should be able to strip off our material and send it to a central coordinating agency. We were all adamant, right from the very beginning, that no one Institute could be responsible for this because that would give unfair advantage to that Institute in terms of recognition and collection, since materials would automatically flow into it to the detriment of the others; a situation nobody wanted. We all wanted to do our own thing for our own clientele and not give an advantage to any one of the participants. My thought was that we needed the sophistication of the kind of material that Ross would give, and to a little lesser degree that we could give, that Yukon might just be able to send catalogue cards and I knew that Judy was doing things with a KWOC at OEIC and that all she had was the bare bones of a citation, and we wanted that kind of material coming in too. So we invited Judy to join the group becaus we wanted to get together a group that represented all the different forms of data that would be fed into this central coordinating agency. Then we needed someone to coordinate us, so we looked to ACUNS (Asociation of Canadian Universities for Northern Studies) as being a group that could coordinate us but that was outside of all of us. We approached them and asked them to help us.

Now I'm going to jump ahead a bit because this whole issue of northern Canadian bibliography has surfaced again at the National Library level with Dr. Louis Hamelin who is a member of the National Library Advisory Board. He wanted "the board to consider the possiblility of a national library collection on the north to support the research being done in this area and to endorse the reality of Canada's northerness. Knowing that aspects of this question had been examined by different groups in the past years, the National Librarian had a report prepared for the board, in order to identify the major collections and issues related to the topic. In discussing the report, several board members urged that the question of a central, comprehensive collection be pursued, although it is realized that, at present, collections are dispersed and access to them by geographical designation, as well as by subject, is uneven." (National Library News, July 1984, Vol.16,no.7, p.3) The person who was asked to prepare that report for the National Librarian was Gwyneth Evans, present here at the Colloquy and she has kindly made her report available to me. She gave a brief history and I think that it is best that I read this to you:

"In the mid-seventies a group of librarians/specialists from the different institutions involved in northern research explored the possiblities of a cooperative bibliography of Northern Canada. These six libraries/information centres (Arctic

Institute, Boreal Institute, Northern Research Information and Documentation Service, Northern Studies Library in Montreal, OEIC, and Yukon Archives) represented government, academic and business interests and had developed various systems (from the simple to the sophisticated) to make accesible their collections on the north.

In 1978 the group approached the Association of Canadian Universities for Northern Studies to discuss the possibility of support on a Bibliography of Northern Canada (BNC). The development took place in several stages:

a) in 1978, an informal Canadian group of the Northern Libraries Colloquy approached the Association of Canadian Universities for Northern Studies to determine whether concern for the bibliographic control of information on the North was part of the mandate of ACUNS;

b) in 1979, ACUNS developed a draft proposal for a periodic current bibliography of scientific and technical literature concerning the Yukon and Northwest Territories and the more northern parts of the provinces. The proposal was circulated to about 30 organizations and individuals for comment;

c) Dr. Trevor Lloyd, of ACUNS and Garth Graham, representing the six institutions which would cooperate in the building of the database, presented brief reports on the proposal for a Bibliography of Northern Canada at the Eighth Northern Libraries Colloquy, Edmonton and Whitehorse, June 1-6, 1980;

d) in October 1980, following agreement to develop the proposal, a Management Committee with representatives of the six institutions and other organizations was formed. The Executive Director of ACUNS, P.C. Mackie, acted as project coordinator, and a Request for Proposal was drawn up for a contract to study the feasibility of building a cooperative database and to make recommendations on its structure and administration;

e) Patricia Acton, Acton Information Resources Management Ltd., won the contract in June 1981, and submitted her study _Development of a Bibliographic Database on Northern Canada: Summary Report_ in September 1981."

The report was submitted written and also verbally. Some or all of the six participants realized they had misrepresented themselves in some ways. It was the kind of thing where you think you've said what you mean only you find out later that you hadn't. But essentially it was a very good report and made a lot of recommendations. Some of the more important ones were:

- that positive and immediate action be taken to improve access to northern information

- that the support of the project be taken up at the national level
- that this project be coordinated by an autonomous organization, but not by any of the participating centres
- that the participating centres not be required to provide additional financial, staff or material support for the project
- that rigid guidelines be established for the initial coverage of, and services provided by, the northern information system
- that the participating centres embark on a program of collection rationalization for those topics which are outside of each libray's primary collection area
- that a computerized database be developed and printed paper or COM (Computer Output Microfilm) bibliographies and current awareness publications be potential products of this database
- a clearing house be established that has services to complement the database.

From this report, ACUNS then put forward a grant request to SSHRC for funding a pilot project for the year. As is customary, the request went out to review, and the comments received were circulated to the members of the group afterwards. Everybody was very supportive of the project but it didn't receive funding. Part of the problem was we were really not specific enough. We were sort of on a motherhood kick with this kind of thing and we did not get down to the specifics, something we never really concretely addressed. Pat had a lot of recommendations in her report, but I don't think any were followed up.

To my mind there are still unresolved issues. For example, the area of coverage, what is north? To me it was Yukon and NWT. Since the Boreal Institute already compiles a Yukon Bibliography and we are failing to keep up with the literature even for that small geographic portion of the whole area we were looking at, the enormity of the problem gets to you - how much more can you cope with? Should we include the north of the provinces or just Quebec-Labrador? Also - we never really thought about the type of materials to be covered. The National Library covers all monographs concerned with Canada, including northern Canada, and has an on-line catalogue. Should we strip the mongraphs from the National Library's database and cover the periodic literature only? (Which Ross is doing, and I am doing). We never really decided this, so then you don't know what it is that you are trying to produce and I think that is partly why the request failed.

In the meantime, and I read from Gwyneth's report again:

> "Since the Acton Report of 1981, there have been several changes in the situations of the six participating institutions.The most notable are: first, the Northern Research Information and Documentation

> Centre, part of the Northern Affairs Program of the Department of Indian and Northern Affairs, has been disbanded and much of the report literature has been given to various libraries, including the library at the Department of Indian and Northern Affairs. There are no clear indications on whether this service will be continued in some form by the Department; secondly, as part of the general relocation of the Centre for Northern Studies and Research at McGill, the Northern Studies Library has been moved (as you heard this morning from Alan) to the Physical Sciences and Engineering Library and is being housed and developed as a separate collection. Thirdly, there has been some change in personnel within the group of the libraries/information centres which originally explored the possibilities of a cooperative database."

In the meantime, as Pat Acton made very clear in her report, there was the need to cooperate and we all agreed; but we Canadians are a very independent bunch and none of us were willing to give up what we were doing presently because we are all serving our own institutions. I am willing to cooperate to the extent that I have put, since the beginning of this idea, an automatic tracing of BNC on any record that I have suitable for BNC, so I can strip out from my database over 5,000 records that pertain to the north, viz. Yukon and NWT. We have another classification of BNCQ which is 'maybe suitable for a BNC', depending on where the boundary line is drawn. I don't want to stop what I am doing because I have a community to serve, but I can strip that data out of my database and send it to a centre where, if useful, it can become a component of the Bibliography of Northern Canada. I am willing to do certain things first as I do for the Scott Polar Institute, for whom we index certain Canadian periodicals on a priority basis and send to them for their indexing and abstracting. I am willing to do certain things on a priority basis and always make sure that we have a subscription to certain specified periodicals. And maybe, because Ross is closer to the industry, I will rely on him to collect petroleum information. It is this kind of thing that we all talk about and dream about but never do. Maybe somebody will hit us on the head and coordinate us; perhaps the National Library will be willing to make a move now. Also the current economic situation will bring some very hard realities home to us and we will have to do some things whether we like it or not. But we are a very independent bunch. I think what I am doing is great and I'm not about to stop doing it and so forth. So we have a dilemma. Perhaps the things that Alaska is doing in terms of evaluating collections will be a very useful exercise for us in Canada to signal were our strengths and weaknesses are. As far as I am concerned right now I think BNC, a Bibliography of Norhtern Canada, is dead, and whether it is feasible or not yet I don't know. It's an enormous project just for Canada and a total Arctic Bibliography is even worse.

There are a lot of small cooperative things going on, a lot of things with other libraries, a lot of informal networking and maybe that is the way it will go for now, because as we wait or as we don't make up our minds, technology is racing ahead anyway and a lot of the things that we are doing will be able to be linked without compromising our own internal need, i.e. to serve the institution that is basically funding us. So perhaps we are worrying unnecessarily. We have the links and they are coming faster everyday. Just to know may be enough. As Martha said, a good guide as to how to use what is already there would be a very useful thing for us to do.

INFORMATION SHARING - A SUCCESSFUL PROJECT

Ross Goodwin
Arctic Science and Technology Information System (ASTIS)

Judith Whittick
Ocean Engineering Information Centre (OEIC)

ABSTRACT

This paper describes a simple but effective information sharing method that was used to develop a database of cold ocean engineering information relevant to Canada. Under a contract from the Canadian federal Office of Energy Research and Development, recent cold ocean engineering literature in the collection of the Ocean Engineering Information Centre (OEIC) at Memorial University was added to the Arctic Science and Technology Information System (ASTIS) database at the University of Calgary. OEIC documents already in the ASTIS database were identified, and an additional location code was added to their database records to indicate availability at OEIC. Information necessary for the indexing of those documents not already in the database was transferred from OEIC to ASTIS by simply photocopying carefully selected pages of each document, and then adding collation information, and abstracts where necessary, to the photocopies. A published bibliography has been produced using part of the resulting cold ocean engineering database. As of August 1984, 730 new documents have been added to the database using this method, and 2675 existing ASTIS documents have been identified as being available at OEIC.

Information networking and sharing of resources is essential in these times of limited financial resources. The participants in a network each contribute their own unique expertise to build a successful system which benefits all those who are seeking information.

In the early 1980's the Ocean Engineering Information Centre (OEIC) at Memorial University in St. John's and the Arctic Science and Technology Information System (ASTIS) at the

University of Calgary recognized that they had complimentary capabilities and expertise in Canadian scientific and technical information. OEIC's expertise is in the identification and acquisition of cold ocean engineering documents, while ASTIS' expertise is its capability for indexing arctic literature and making it available to a large audience through an online database and a variety of publications. The two organizations realized that by adding information from OEIC to that already in ASTIS, these capabilities could be combined to build an in-depth database on cold ocean engineering which would be readily accessible on a national and international basis.

The methods for adding information from OEIC to ASTIS were developed during a pilot project in 1981, but it was not until 1983 that funding became available for a large-scale information transfer. In September 1983 outside funding for such a project was obtained by OEIC from the Office of Energy Research and Development, a branch of the Canadian Department of Energy, Mines and Resources with a mandate to assist technology transfer in the oil and gas industry. The terms of this six-month contract called for the incorporation into the ASTIS database of all cold ocean engineering information relevant to Canada received by OEIC since the beginning of 1981. A subcontract was issued to ASTIS for its part in the project.

For the purposes of this project, cold oceans were defined as those that have ice on them for at least part of the year, a definition that corresponds with ASTIS' normal geographic coverage. The project dealt with two related subject areas. The first was ocean engineering as such - the design, construction and testing of structures, vessels, and equipment for use on or under the ocean. This included such subjects as offshore structures, ships, offshore oil well drilling, underwater pipelines, wharves and harbours, navigation systems, ice management and ice control systems, and oceanographic instruments and equipment. All such technology was considered to be relevant to Canada, no matter where the actual work was done. The second subject area was the ocean physical environment - the information on sea ice, waves, winds, etc. which provides the parameters for engineering design. Only information of this type describing oceans adjacent to Canada was covered by the contract.

OEIC staff identified documents already in ASTIS using several different methods. Serials coverage of OEIC and ASTIS was compared, allowing OEIC's location code to be automatically added to many long runs of serial analytics in the database. No attempt was made to limit this process to ocean engineering, or to post-1981 material, so many ASTIS serial analytics in other subject areas and which were received before 1981 are now also identified as being available at OEIC. Monographs were checked using the microfiche ASTIS Bibliography and the ASTIS Current Awareness Bulletin, and lists of the ASTIS document numbers of items identified in this way were sent to ASTIS to have OEIC's code added. As a final check, as the project neared completion ASTIS sent lists of those cold ocean engineering documents in the database that did not have OEIC's code to OEIC for review.

OEIC documents that were not already in the ASTIS database were indexed by ASTIS staff using information supplied by OEIC. This information consisted of photocopies of selected pages of the document, to which collation and other information was added by hand. A detailed set of instructions was supplied by ASTIS which described what pages should be photocopied and what additional information was required for various document types. In addition, OEIC prepared abstracts for those documents which did not have author abstracts. Microfiche documents, which could not be photocopied conveniently but which could be mailed easily and cheaply. were sent to ASTIS for indexing.

The pilot study had shown, and this project confirmed, that indexing without having the actual document in hand can be done quite safely if it is planned well and carried out with care. In the very few cases, less than one-half of one percent, where the ASTIS indexers felt that they did not have enough information to index a document satisfactorily, additional information was obtained from OEIC by telephone.

At the end of this six-month contract, in March 1984, 616 new documents from OEIC had been added to the ASTIS database, and 2614 existing ASTIS documents had been identified as being available at OEIC. Since the purpose of the contract was to provide an online database of cold ocean engineering information, no published bibliography was called for. A listing of the 2722 cold ocean engineering documents in ASTIS at that time was provided to the Office of Energy Research and Development to show that the terms of the contract had been carried out.

Although the outside funding and formal contract had ended, ASTIS and OEIC continued to add information to the database using their own resources throughout the first half of 1984. In June 1984, in order to bring together all the ocean engineering information in the database as a useful reference tool for those working in this field, a bibliography on cold ocean engineering was prepared. In order to keep this bibliography to a manageable size it was decided to include only those documents which dealt with engineering as such, and not those dealing with the marine physical environment. Although information about the physical environment is necessary for engineering design, and although such information was covered by the OERD contract, its inclusion would have made the bibliography almost three times as large. (For example the ASTIS database now contains over 1200 documents on the distribution and properties of sea ice).

The resulting bibliography, entitled simply Cold Ocean Engineering Bibliography (Goodwin et al., 1984), contains 848 citations, with abstracts, and with location codes indicating where the original documents may be obtained. It should be emphasized that this is neither a selective nor a comprehensive bibliography. It consists simply of the recent acquisitions of two information centres which specialize in this subject area. It does not, for example, contain much information published before the mid-1970's. It does, however, provide an excellent overview of recent developments in cold ocean engineering.

As of August 1984, 730 new documents from OEIC have been added to ASTIS, and 2675 existing ASTIS documents have been identified as being available at OEIC. A total of 24% of the documents in ASTIS have therefore been identified as being available at OEIC, and the actual overlap between the database and the OEIC collection is probably slightly higher than this. Note that there was no intention on the part of this project to create some sort of union catalogue, since the non-overlapping parts of the two collections are not of mutual interest. OEIC contains non-arctic marine information which is not of interest to ASTIS, and ASTIS in turn contains non-marine arctic material which is not of interest to OEIC.

ASTIS and OEIC expect to be able to continue this exchange for the foreseeable future, thus ensuring that an up-to-date database of cold ocean engineering information remains accessable to all.

REFERENCES

Goodwin, C.R., Whittick, J.A., Howard, L.M., Finley, J.C., and Rodden, B.D. (1984). Cold ocean engineering bibliography. ASTIS Occasional Publication No. 12, C-CORE Publication No. 84-12, 169p., June, 1984.

APPENDIX I

Networking and Information Sharing: A List of Indexes of Northern Collections Available on COM Fiche

NETWORKING AND INFORMATION SHARING

At the afternoon session on Day 4 following Technical Session IV and V, issues and problems on information sharing and the development of northern information networks were discussed by the delegates.

One cost effective solution for information sharing recommended and endorsed by the Colloquy is the sharing of COM fiche indices of library/information centre holdings. These are available for many northern collections. Through these indices, access to many northern-related subject areas for both monographic and periodical literature is given. This is particularly true for those trying to find a library location for monographs and conference materials to borrow on interlibrary loan. Few indexes are available for these kinds of materials which list location of specific items.

The following is a list of Northern library holdings on COM fiche provided by the delegates at the Colloquy. Those interested should contact the person listed and negiotate purchase and/or exchange. (Full addresses are given in the participant list).

Indexes of Northern Collections Available on COM Fiche

1. Ocean Engineering Information Centre (J.A. Whittick)
   KWOC Index on fiche. (COM fiche)
   Master fiche in January
   Supplement once a year.

2. Memorial University Library (A. Hart)
   Monographs and Periodicals on COM fiche
   It contains the Newfoundland and Labrador materials in the Centre for Newfoundland Studies.

3. Boreal Institute for Northern Studies (G.A. Cooke)
   Newsclippings available on fiche from Micromedia Ltd.

4. Newfoundland Public Library Services (C. Cameron)
   All holdings in Newfoundland Collection available on COM fiche (except some of the older material which is gradually being added). All holdings of all Newfoundland Public Libraries Jan. 1981 to date. Quarterly Cumulations.

5. Lakehead University Library (M. King)

Monographs and periodicals in Lakehead University Library. Includes Education Library 1976-1981, 1982-1984 supplement and 1984 supplement.

Separate set of microfiche for government publications - contains all items in CODOC collection - very heavily forestry oriented.

NOTE: CODOC sells a master set which includes all holdings for all participating libraries.

6. Indian and Northern Affairs Canada (R. Kamra)

Has COM fiche of its own collection catalogued on UTLAS since Oct. 1981.

Master cumulation - May each year. Bi-monthly supplements.

N.B. Only master cumulation will be made available, not supplement.

7. Microfiche of Oral History Collections in Alaska (W. Schneider)

Alaska & Polar Regions Department
Elmer Rasmuson Library, University of Alaska, Fairbanks

8. The holdings of McGill University Library System (MULS) is on COM fiche. What is left of the Northern Studies Library is not yet on fiche, bt there is talk of doing so.

Write to: Mr. Robert Freese
Librarian
Physical Sciences and Engineering Library
McGill University

to ask for more information.

9. Alaska Library Network Catalog (C. Innes-Taylor)

It is available at no charge.

Write to: Dick Engen
Alaska State Librarian
Alaska State Library
Pouch G
Juneau, AK, 99801
U.S.A.

10. World Date Centre A for Glaciology (snow and ice) (A. Brennan)
- entire collection 12,000 plus, annual updates @ 1500/year.

11. ASTIS Bibliography (R. Goodwin)

12. University of Calgary Serials List (H. Fry)

APPENDIX II

Report on Canadian Library Resources on the North

The following is a background document prepared for the National Library Advisory Board and does not represent official National Library Policy.

REPORT ON CANADIAN LIBRARY RESOURCES ON THE NORTH

Prepared for the National Library
Advisory Board

by

Gwynneth Evans

April 1984

I acknowledge the assistance of G.A. (Nita) Cooke, Hazel Fry, Inez Heseltine, Ramma Kamra and the staff of the library of the Department of Indian and Northern Affairs, Nora (Corley) Murchison, Gertrude Rosenberg and Eileen Van Heyst in the preparation of this paper.

Nita Cooke deserves special thanks for her review of a preliminary draft of the paper and for her permission to distribute copies of "Bibliographical Activity on the Canadian North and Mid-North Regions" and the entries from the revised "Polar and Cold Regions Library Resources: A Directory", to be published this summer by the Boreal Institute.

Introduction

At the April 1983 meeting of the National Library Advisory Board, Dr. Hamelin asked whether it would be possible to develop a national resource collection on the North. Investigation of the question was supported by the Board and Dr. Sylvestre suggested that, as a first step in addressing the question, a report be prepared on the state and accessibility of Canadian library collections on the North, because he knew that the issue had been raised in other forums.

The purpose of this report is to provide a brief description of what has been done in this field, to lay out the issues related to Canadian library resources on the North, and to suggest some options for the future.

Major Participants

A. The Arctic Institute of North America

The Arctic Institute of North America was founded as a non-profit organization in 1945, with financial support from both the American and Canadian governments (including the National Research Council). It was formed to sponsor research and to acquire and make available information about the North. For many years, it remained the most comprehensive and all-embracing of research groups in this field in Canada. In addition to sponsoring colloquia and to publishing monographs and serials such as Arctic and Information North, the Institute compiled and published Arctic Bibliography in sixteen volumes (1953-1975) which covered all types of international literature on the North from the years 1947 to the early 1970's. Over the years, the Institute also developed a library, which ranked as the best of its kind on the continent, at its headquarters in Montreal.

As priorities for the American and Canadian governments changed during the sixties and interest in the North expanded to universities, to industry, and to provincial governments, the financial support for the Arctic Institute also altered and diversified. Moreover, it became clear by the early seventies that the Arctic Bibliography would be difficult, if not impossible, to maintain, even if the process were automated. Further changes led to the Institute's headquarters being moved to Calgary in 1976 and in 1979 the library of the Institute became a separate collection within the University of Calgary library, although other possibilities for its disposition had been considered.

B. Boreal Institute for Northern Studies, University of Alberta

The Boreal Institute was established in 1961 and its major objective was "the acquisition and dissemination of knowledge of the North". This aim was effected through the development of a library and information centre; provision of training and instruction; and implementation and encouragement of research.

While approximately forty-five discrete library collections on polar regions have been identified in Canada, the collections of the Arctic Institute and the Boreal Institute have been mentioned because they were considered two of the earliest special collections on the North, and because the librarians of the two institutes cooperated in sponsoring the first Northern Libraries Colloquy in 1971.

C. Northern Libraries Colloquy (NLC)

The Northern Libraries Colloquy, a group of international librarians, held its first meeting in 1971. The group met annually for several years and now meets every two years to exchange information on northern collections and resources, and to discuss problems common to northern library and information services. From the outset, the group was concerned with the bibliographic control of library resources on the North. When the Arctic Bibliography began to fail and it became apparent that the various northern countries would be responsible for control of their own national literature, Canadian librarians in the Colloquy investigated means of ensuring control of the Canadian literature.

In 1975, the Colloquy published Polar and Cold Regions Library Resources: a Directory through the Boreal Institute. The information was compiled through the completion of a questionnaire by libraries with discrete collections. Like many library directories, this provides general information on what kinds of collections and services exist in each institution and how these may be used, but the level of information on the collection does not substitute for a library catalogue or data base. This international directory is being revised by the Boreal Institute for the 1984 meeting, to be held in St. John's, Newfoundland, in August, and will furnish more current information on the various library collections on polar regions. The revised directory will contain information on forty-five discrete Canadian library collections on polar regions, and will not include information on those which are part of larger general collections.

D. Association of Canadian Universities for Northern Studies

A fourth major interest group is the Association of Canadian Universities for Northern Studies, founded at Churchill, Manitoba in 1977 and incorporated in March 1978. The Association, with thirty-three university members, has as its purpose "the advancement of northern scholarship through education, professional and scientific training and research".[1] One of its most recent publications is the second edition of List of Northern Specialists at Canadian Universities (1983).

Bibliography of Northern Canada

In the mid-seventies, a group of librarians/ specialists from different institutions involved in northern research explored the possibilities of a cooperative bibliography of Northern Canada. These six libraries/information centres[2] represented government, academic and business interests and had developed various systems (from the simple to the sophisticated) to make accessible their collections on the North.

In 1978, the group approached the Association of Canadian Universities for Northern Studies to discuss the possibility of support on a Bibliography of Northern Canada (BNC). The development took place in several stages, outlined below:

(a) in 1978, an informal Canadian group of the Northern Libraries Colloquy approached the Association of Canadian Universities for Northern Studies to determine whether concern for the bibliographic control of information on the North was part of the Mandate of ACUNS;

(b) in 1979, ACUNS developed a draft proposal for a periodic current bibliography of scientific and technical literature concerning the Yukon and Northwest Territories and the more northern parts of the provinces. The proposal was circulated to about 30 organizations and individuals for comment;

[1] Taken from the brochure of the Association.

[2] Arctic Institute of North America (Calgary), Boreal Institute for Northern Studies Library (Edmonton), Northern Research Information and Documentation Service, Dept. of Indian and Northern Affairs (Ottawa), Northern Studies Library (Montreal), Ocean Engineering Information Centre (St. John's), Yukon Archives and Records Services (Whitehorse).

(c) Dr. Trevor Lloyd of ACUNS and Garth Graham, representing the six institutions which would cooperate in the building of the data base, presented brief reports on the proposal for a Bibliography of Northern Canada at the Eighth Northern Libraries Colloquy, Edmonton and Whitehorse, June 1 - 6, 1980;

(d) in October 1980, following agreement to develop the proposal, a Management Committee with representatives of the six institutions and other organizations was formed. The Executive Director of ACUNS, P. C. Mackie, acted as project coordinator, and a Request for Proposal was drawn up for a contract to study the feasibility of building a cooperative data base and to make recommendations on its structure and administration;

(e) Patricia Acton, Acton Information Resources Management Ltd., won the contract in June 1981, and submitted her study Development of a Bibliographic Data Base on Northern Canada: Summary Report in September 1981;

(f) ACUNS submitted a grant proposal, based on the findings of the Acton Report, to the Canadian Studies Research Tools program of the Social Sciences and Humanities Research Council (SSHRC) in the spring of 1982;

(g) the grant proposal was not approved by SSHRC.

Present Situation concerning Bibliography of Northern Canada

Since the Acton Report of 1981, there have been several changes in the situations of the six participating institutions. The most notable are: first, the Northern Research Information and Documentation Service, part of the Northern Affairs Program of the Department of Indian and Northern Affairs, has been disbanded and much of the report literature has been given to various libraries, including the library at the Department of Indian and Northern Affairs. There are no clear indications on whether this service will be continued in some form by the Department; secondly, as part of a general relocation of the Centre for Northern Studies and Research at McGill, the Northern Studies Library has been moved to the Physical Sciences and Engineering Library and is being housed and developed as a separate collection. Thirdly, there has been some change of personnel within the group of the libraries/information centres which originally explored the possibilities of a cooperative data base.

Issues related to Canadian Library resources on the North

The foregoing has noted the formation of two important special collections and outlined the steps undertaken by representatives of six institutions and the association of Canadian Universities for Northern Studies to provide a cooperative data base for access to their library collections on the North. Many of the difficulties which prevented the resolution of the issue of a cooperative Canadian bibliographic data base arise from the complexity of the more basic issues related to Canadian library resources on the North. These may be summarized as follows:

(a) the six institutions did not reach a decision on what constitutes the North, just as an approved definition of northern Canada has not been resolved, although a working definition, with three classifications, has been developed by Professor Hamelin;[3]

(b) study of the North is multidisciplinary and multinational; library resources should therefore also be multidisciplinary, current and retrospective, and include materials from other northern countries: Alaska, Denmark (Greenland), Iceland, Norway, Sweden, Finland and the USSR, in the languages used by those countries in their documentation;

(c) at the federal level, the National Library of Canada and the Canada Institute for Scientific and Technical Information (CISTI) divide responsibility for library collections into the social sciences and humanities and science and technology, respectively. There is, therefore, no one federal insitution whose mandate includes responsibility for collections in all the subjects pertinent to the North:

(d) while several major federal libraries have collections on the North (e.g. National Library of Canada, CISTI, Indian and Northern Affairs, National Museums, Environment, Agriculture, Energy, Mines and Resources, including Geological Survey, Health and Welfare, etc., they have not been segregated from the main collections. They are, however, accessible by author, title, subject on major data bases/ utilities;

(e) six institutions with particular interest in the North were identified in the Acton Report. Some of their collections are unique and the bibliographic and information services which make them accessible are already highly developed and available on-line and in print or COM (e.g. the collections of the Arctic Institute, the Boreal Institute)

3. T. H. B. Symons. Some Thoughts on the Current State of Teaching and Research about Northern Canada (Ottawa: Association of Canadian Universities for Northern Studies, 1980) p. 1

and the Yukon Archives and Record Service. It would be very expensive to duplicate these collections, and while technology can assist in making them more widely available, it would be difficult for a single institution or a group of institutions at the federal level to justify the funds necessary to duplicate these collections and, on an on going basis, to acquire and develop collections and services on such a range of subjects and languages and such a vast geographical area;

(f) access by geographical location is important to researchers studying the North. However, the subject access to many collections, does not provide access by specific geographical designation. Boolean logic or keyword search on title or abstract can provide this access in the automated environment, if the geographical designation is part of the title;

(g) the numbers of persons interested in documentation on the North are growing and their information needs are quite diverse. Some of the major groups are: academics interested in both teaching and research; government employees; private consultants; employees from industry; Native peoples;

(h) the research findings for some of these groups are not publicly available[4] and, therefore, even the collective resources of many institutions may not represent the literature of the Canadian North in a comprehensive manner;

(i) first the Arctic Institute and then the Northern Libraries Colloquy and the Association of Canadian Universities for Northern Studies attempted to attract funding on a continuing basis for a data base to provide collective access to materials on the North; they have not been successful.

In summary, the range and dispersal of library resources on the North, the varied interests and jurisdictions of institutions collecting on the North, the requirement for enhanced geographical access, and the lack of continuous funding have, to the present, militated against the development of one coordinated data base on Northern Canada. However, much in the way of bibliographic control has already been accomplished and sources to northern materials are listed in Appendix A.

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[4] Symons, op. cit.

Options for the Future

Recognizing that it is impossible for one institution to assume responsibility for providing a comprehensive collection on the North, and that it has been difficult to establish a national data base, there appear to be several options. These focus on (1) an inventory of special collections on the North; (2) the possibility of enhanced bibliographic access; and (3) information and interlending resource sharing.

(1) Inventory of Special Collections on the North. Using the conspectus developed by the Research Library Group (RLG) as a basis, the Alaskan libraries, with support from Paul Mosher of Stanford, are compiling inventories of their collections. In Canada, the Resource Network Committee and the Canadian Association of Research Libraries are developing plans for compiling inventories of significant research and special collections, and the collections on the North would be part of Canada's effort to identify strong collections. The information could also be used as the basis for the orderly development of a Canadian data base on the North.

(2) Enhanced Access. Several of the major institutions with northern collections have mounted automated data bases to provide access to their collections. In the environment of Open Systems Interconnection, it is not necessary that all records be in the same data base. The files could be made more widely available through the use of a commercial information provider or, for example, through participation in the iNet market trial. When other institutions with significant collections have been identified, they too will provide access to their collections. Some discussion of geographical approach will likely be necessary.

(3) Information Services and Interlibrary Loan. Information and interlibrary loan services are based on collections and on the expertise of staff who make accessible their collections and are aware of related collections and services. Once significant collections have been identified, researchers will also be made aware of the services offered by these institutions. There is and will also continue to be strong back-up services from the National Library of Canada and CISTI.

APPENDIX III

10th Northern Libraries Colloquy

Text of a tape from

Hubert Wenger

Text of a tape from Hubert Wenger

transcribed and partially edited by

G.A. (Nita) Cooke

The first interest of the Colloquy must be an arctic bibliography, although in Alaska and Canada maybe you are satisfied, or you can get information quickly, but don't forget in Europe you have many students outside Cambridge and Paris, and for them, like in Italy, in Germany, in Holland, it's very difficult to get information. One thing they miss is the old Arctic Bibliography, perhaps not as good as it once was, but it was still useful. Now maybe I shall go daydreaming, but my dream is that an Arctic Bibliography must be something which must be put on computer so that you can very easily get an alphabetic listing of authors and also subject terms. I think today it must be possible to come to a point that you don't do files that you send, but do a floppy that you can send to a central place. Then they won't have to type again and type again, but that they can only transfer to their computer, a big one. Also, if you want information, you get the floppy and not a listing. Then you use that and you have always on hand the latest information. But I know that the trouble is that computers are not always compatible, communication is not always very easy between computers.

I have an IBM 6580, it is not a personal computer from IBM, but it is one of the cheapest ones, better than the personal computer--I am quite pleased with it. It can do quite a lot of work and what I dream of is the day that we won't get a listing by mail, but a floppy, and one makes a copy of it and sends it back to the central, and one has on hand a bibliography. I think that it will be so in the future, maybe in the far future. Now one works like in the Middle Age when, if you want to keep information or find it again, you have to make a copy for yourself on files and then you waste a lot of time. In libraries I have seen a lot of people wasting time because the organization is not up to date.

I am sending in the mail a sample of my work. It is not the best example but it gives an idea. The first example is of a project done in the hope you can make a comparison of different observations from different persons on the Thule Eskimo. It's a very very long work, maybe worthless, maybe very useful. I don't know, only time will tell me. And I have seen that concerning the history of the Eskimos, you have the general descriptions, but there are a lot of differences, e.g. in the beliefs and in the taboos and the shamanism. If you look at the papers about the Thules, we don't know yet exactly who they were. There is a part of legend, and there is a part or so which lets us suppose that it was a population which existed in the old time. Well, I have not yet come to a conclusion. On this point I do research with a professor in Berne. Unfortunately this listing is absolutely far from complete. On the page there are two parts (see Figure 1)--the top part gives the bibliographic information and the bottom part is the text. The text is tied as faithfully as possible to the original. Sometimes there are mistakes, but these are mistakes which are in the books. This is not only because I want to keep to the text, but also because, if someone else is typing and does not know the language perfectly, it is easier to be faithful to the text than to try to correct it yourself. The text on the page is sometimes short and sometimes longer; it's done by myself and I think it's more practical for me so to classify the observation later. For example, in the text you have sometimes a word and a stripe--it's for me to find it easily when I want to work. At the top, ONC means something American--it means Operational Navigation Chart. I use the chart from the USAF because they are not too heavy and the scale is good for my work and I have all of them. The number is the number of a sheet. Then sometimes you have a map but that's wrong. It is an observation which is not to take in consideration. I won't argue about the word Eskimo, that I employ, but I am against this folkloric word Inuit. It is alright for the population living north, but you can't employ it as translation from Eskimos because you have the -uit. I have seen that I am not the only one to be concerned. To employ the word Inuit too quickly can bring quite a lot of difficulties. You have to look at the last page of this print. You have some indication of some symbols and characters that I employ in the printing. (See Figure 2).

Now, about the bibliography of periodicals. It's something I have been doing for myself, so that when I go on a journey, I could quickly have information about a periodical and in which country I could find it and in which library. On the first pages you have the classifications of the libraries (see Figure 3), but unfortunately, I did not put the address, because sometimes I didn't have it. The classification is so--first you have BP and a number--that means the registration number in my archives. Then you have an abbreviation, for the computer, to get the information more quickly. For example, I use Meddelelser om Grønland quite a lot, so I call it MOG. And MOG is easy to remember. And then after you get the name of the periodical, the ISSN number and under the name of the country (I use the international automobile plate) code name for the university or library and then the volumes that they have (see Figure 4). It is full of mistakes and I am sorry to say that many authors are very very negligent and neglect to give good references. But as soon as I detect a mistake I make a correction. I must thank Marvin Falk who sent me his microfilms for the periodicals so I could add Alaska, and I have the one from the Scott Polar Research Institute, and sometimes people give me information for the correction or for an addition. Everytime that someone wants to have a printing--I'll do it with pleasure.

I hope that in Newfoundland at this Colloquy that there will be good work done. There is also something which I think is very important--it is a new edition of the Northern Library Directory. The edition is nearly 10 years old and the information is not up-to-date. It is something so important that I am quite ready and will be pleased if I can be of any help.

[Anyone wishing to correspond with Hubert on his projects can write to him at: Chemin des Verneys, CH-1297, FOUNEX, Switzerland.]

ESKIMOS IGLULIK ESKIMOS

MATHIASSEN, Therkel VOY:1921-24.

Material Culture of the Iglulik Eskimos.

Report 5th Thule Exp. v.VI,n1, 1928. p.189 c BP.205

ONC map

po.1 Tunit 11

p.189 c

Hawkes[3] also refers to the Tunnit legends and says that they built houses of heavy stones with whale ribs and shoulder blades for the roof, doorways of whale jaw-bones; they did not know the bow and arrow, but had the throwing board and did not understand how to prepare caribou skin, built stone fences for caribou hunting and carried a small lamp with them, all features that we recognise from Baffin Land. They also hunted the whale from big boats but did not know how to make waterproof boots.

---

[3] p.143-47. ((Hawkes, E.W.: The Labrador Eskimo. Canada Geological Survey. Anthropological series. Vol.XIV. Ottawa. 1916.))

Figure 1

Signes pour modification dans la frappe d'un texte:

/ xxxx /	signifie que le texte est imprimé d'une manière fifférente. text printed in a different manner.
xxxxxx	signifie que les caractères soulignés ne sont pas ceux du texte qui peuvent avoir des signes différent.
// xxxx //	note personnel.
((xxxx))	"
≠	texte différent à une autre édition.
xxxx_xxxx	le _ signifie que le caractère ou sgle ne peut efre reproduit par l'imprimante.

Figure 2

Hubert P. WENGER.

Chemin des Verneys
1297 FOUNEX
SUISSE

Draft : January 1984
SUISSE

BP = Bibliography : Periodicals, Journals, etc.

Librairies :

F	SG	= France,	Paris,	Société de Géographie.
F	BN	= "	" ,	Bibliothèque Nationale.
F	BN CPl	= "	" ,	Cartes & Plans.
F	MH	= "	" ,	Musée de l'Homme
GB	SPRI	= Great-Britain,	Cambridge,	Scott Polar Research Institute.
CH	Ge P	= Confédération Helvétique,	Genève,	Bibliothèque Publique et Universitaire.
CH	Ge 3	= " "	" ,	Conservatoire Botanique.
CH	Ge 6	= " "	" ,	Clinique Universitaire d'Ophtalmologie.
CH	Ge 26	= " "	" ,	Un. Dep. Anthropologie.
CH	Ge 27	= " "	" ,	Université Bibliothèque Section des Sciences de la Terre.
CH	Ge 30	= " "	" ,	Faculté de Psychologie et des Sciences de l'Education.
CH	Ge 31	= " "	" ,	Fédération Internationale de Gynécologie et d'Obstétrique.
CH	Ge 39	= " "	" ,	B.I.T. = Bureau International du Travail.
CH	Ge 47	= " "	" ,	Musée d'Ethnographie.

Figure 3

```
BP.294     MBS   ???     Meddelelser fra Bio Statisk, Afdeling Statens Seruminstitut.

BP.234     MDGK          Meddelelser om den Gronlandske Kirkesag. (Copenhagen)

BP.172     MDG           Meddelelser om Gronland.                                      ISSN 0025-6676
                              CH   ZG Z          c.
                              F    SG            Bd.1-205, nc, (U 67)
                              GB   SPRI          Bd.1-1879-
                              NL   1 UB Am       nc
                              NL   5 UB Le       nc
                              NL   6 UB Ut       73-1937-  (540)


BP.295     MSJ           Medical Services Journal. Canada. (Ottawa)
                              NL   6 UB Ut       nc


BP.341     MSAA          Memoirs of the Society for American Archaeology.

BP.249     MAGW          Mitteilungen der Anthropologischen Gesellschaft. (Wien)       ISSN 0373-5656
                              NL   4 UB Gr       1-1871-72 - 1946.
                 ???          NL   5 UB Le       18-1888 - 72-1946.

BP.174     MO            Musk-Ox. (Saskatoon)
                              GB   SPRI          1-1967-
```

Figure 4

APPENDIX IV

10th Northern Libraries Colloquy

Summary of the
General Meeting

SUMMARY OF GENERAL MEETING

AUGUST 16, 1984

G.A. COOKE, CHAIRPERSON

1. Are ten Colloquies enough?

All agreed the meetings should continue to exchange information and ideas.

2. Northern Libraries Directory

Nita Cooke gave a status report on the directory. The first directory, printed in 1975, was produced by Nora Corley Murchison. The Boreal Institute for Northern Studies distributed the first edition at $5.00 per copy. The Institute has been responsible for the Trust Account established in the name of the 'Polar Libraries Directory' in which funds from the sale of the directories are being deposited. The current balance stands at $1,470.

In 1980, the Boreal Institute for Northern Studies (BINS) offered to produce a new edition. This is being coordinated on the University of Alberta's computer and is in the final stages of production. The delegates at the Colloquy were asked for advice and suggestions on a) type of libraries to be included in the directory, b) on the format to be used for the directory, and c) the methods for printing and distribution of the volume.

It was agreed that:

a) Only libraries with significant northern collections would be included. New sections would be added to included information resources such as ASTIS and COLD.

b) Format and printing methods would be up to the discretion of BINS, using the cheapest option available.

c) Monies would be collected for the sale of the directories. BINS would be reimbursed for the cost of production and computing costs and the rest credited to the Trust Account.

d) A survey would be carried out through Northern Libraries Bulletin to see if any library would request the directory on fiche.

3. Trust Account

It was agreed that the two signatories on the Trust Account would be G.A. Cooke, Boreal Institute for Northern Studies and C.R. Goodwin, Arctic Institute of North America.

4. Northern Libraries Bulletin

The delegates gave a vote of thanks to Phyllis DeMuth for the excellent work she is undertaking in the production of the Northern Libraries Bulletin. She has been editing the Bulletin since 1971.

Phyllis said that approximately 300 copies were distributed free. She requested that people continue to send materials to her for inclusion in the newsletter.

5. Next Meeting

Ann-Christine Haupt offered to host the next meeting at the University of Lulea, Lulea, Sweden in 1986.

To assist Ann-Christine, a technical committee was set-up:

Valerie Galpin, England
Eugene West, Alaska
Rama Kamra, Canada
Nancy Liston, U.S.A.

APPENDIX V

Northern Libraries Colloquy

Previous Meetings

1st - 1971 Boreal Institute for Northern Studies
Edmonton, Alberta
No Proceedings

2nd - 1972 Cold Regions Research and Engineering Laboratory,
Hanover, New Hampshire
Proceedings Published
Write to: The Library
U.S. Army CRREL
P.O. Box 282
Hanover, N.H.
USA 03755

3rd - 1973 Scott Polar Research Institute
Cambridge, U.K.
Proceedings Published
Write to: The Library
Scott Polar Research Institute
Lensfield Road
Cambridge, U.K.

4th - 1974 Arctic Institute of North America
Montreal, Quebec
Proceedings Published
Write to: Arctic Institute of North America
University of Calgary
Calgary, Alberta
Canada
T2N 1N4

5th - 1975 Rovaniemi Public Library
Rovaniemi, Finland
Proceedings Published
Write to: Rovaniemi Public Library
Rovaniemi, Finland

6th - 1976 University of Alaska
Fairbanks
No Proceedings

7th - 1978 Centre National de la Recherche Scientifiques
Paris, France
Proceedings Published
Write to: Centre National de La Recherche Scientifiques
15 quai Anatole - France
75700 Paris
France
Price (430 FR)

8th - 1980 Boreal Institute of Northern Studies
Edmonton, Alberta, Canada
Proceedings Published
Write to: Boreal Institute of Northern Studies
CW 401 Biological Science Building
University of Alberta
Edmonton, Alberta
Canada T6G 2E9
(Price $7.00 Can.)

9th - 1982 University Library
University of Tromso,
Tromso, Norway
Proceedings in Press

10th - 1984 Ocean Engineering Information Centre, C-CORE
Memorial University of Newfoundland
St. John's, Newfoundland
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APPENDIX VI

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